An Economic Review of 1940

Introduction

THE economic record of the United States in 1940 was one of exceptional and widespread expansion. After an inauspicious first quarter, during which there was a reaction from the inventory boomlet of the final months of 1939, business indicators rose continuously. For the year as a whole, goods and services in record volume were produced and distributed. At the year-end operations in many areas of the economy were at a pace never before achieved, and the defense program made imperative a considerable expansion of output in 1941.

Fundamental changes occurred during 1940 in the character of the propelling factors in the economic situation and in the problems they created. For, in the course of the year, the wars raging on other continents became the dominant influence in the economic sphere; they supplied the impetus for the upswing in activity and determined the alterations in the structure of production which occurred. From the beginning of the year the export demand for war materials was a major dynamic factor. Then, as the invasion of the Lowlands and France revealed the magnitude of our defense needs under existing world conditions, President Roosevelt and the Congress outlined a huge defense program which thereafter overshadowed all else in the business situation. It became clear that the program virtually involved the creation of a new armament industry, or rather a new complex of industries, to provide the mechanized force required to insure the Nation's impregnability.

As both Government and industrial resources were marshalled for this vital and tremendous effort, the needs of the day were translated into orders and the first upswing of the past decade to be truly grounded in the capital-goods industries was begun. Before the end of the year unemployment had been considerably reduced and the operations of many firms were pressing against capacity, though the actual program, while accelerating markedly, was still largely in its initial stages.

Some conception of the enormous scope of the armament program may be gathered from the fact that in the President's budget message of January 1941 it was estimated that defense expenditures for fiscal years 1941 and 1940 would total more than 17 billion dollars.[1] In other words, it was expected that more than 10 percent of our expanded national income would be devoted to defense preparations during this period. While large in itself this effort must be set against the much larger proportion of national income—about one-half—being devoted to military establishments by European belligerents.

By its very size the defense program dwarfed some of the problems encountered during the past decade, since it required that the idle men and machines be put at work in raising total productive output. In their stead arose the problems associated with a vast armament expansion—the problems of creating sufficient armament-producing facilities, of enlarging capacity to avoid bottlenecks, of providing additional labor skills, of limiting price dislocations, and of assuring adequate supplies of raw materials. With the exception of a pressing need for expansion of capacity in certain areas of the economy, these problems had not reached an acute phase by the end of 1940.

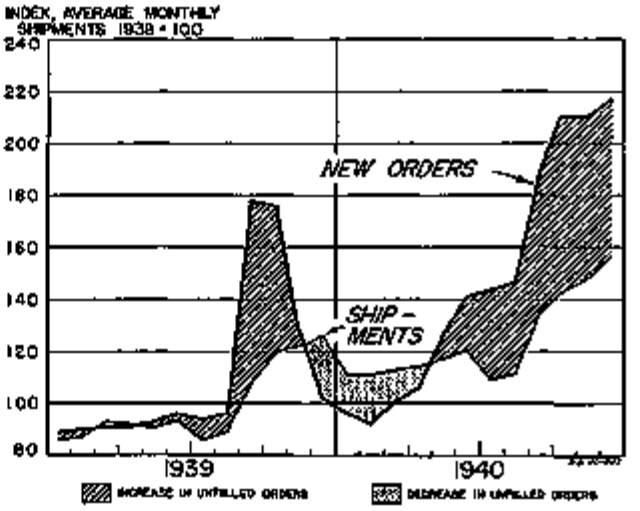

Figure 2.—Change in the Value of Manufacturers' Unfilled Orders, Durable Goods Industries, 1939 and 1940 (U. S. Department of Commerce).

But their very existence, with the defense program in its present stage, suggested the ingenuity, the resourcefulness, and the vision required to meet the tasks ahead. Larger output and larger income in 1941 were virtually certain, but the extent of the rise remained dependent upon the dispatch with which these problems were attacked and yielded to solution.

Inventory Expansion After Outbreak of War.

The business pattern in the early months of 1940 was determined by the forces set in motion after the outbreak of the European war in September 1939. It will be recalled that war came at a time when the economic situation in the United States lacked any

[1] See chapter on Federal finance for description of defense program.

major dynamic expansive force. There had been a little rise in business activity during the months prior to September 1939, and a continued moderate rise to the end of the year might have been expected. However, neither the trend of private business investment nor the projected program of the Government were such as to alter substantially the volume of production and employment.

The coming of the war led to an immediate and drastic alteration in this business picture. For, as figure 2 reveals, it touched off a buying wave of substantial proportions, the Department of Commerce index of new orders rising from 105 (January 1939=100) in August to 168 in September. As demand for consumption and permanent investment had not as yet been altered fundamentally, this increase in purchasing represented an attempt to anticipate the price rise and possible shortages of supply that were expected to result from the war. A sharp increase in production, based primarily upon this purchasing for inventory, got under way and continued on an upward trend until the end of the year. The magnitude of the influence of inventory purchasing in the rise of production can be appreciated from the fact that the Department of Commerce index of manufacturers' inventories rose from 95.9 (December 31, 1938=100) in August to 107.3 in December—an increase in dollar terms of approximately 1 billion dollars. As the psychological basis of the rise came to be understood, and the anticipations failed to materialize, the volume of purchasing fell off very rapidly.

Business Declines in Early 1940.

By the beginning of 1940 the volume of production had already passed its peak. New orders were well below shipments, and output was being maintained at the expense of the enlarged volume of unfilled orders that had been built up in September and October. Inventory accumulation was still very large, so that a resumption of purchasing in substantially increased volume could hardly be expected for some time without a marked change in the basic situation. The one expansionary force at work was the demand from abroad—the volume of exports of United States merchandise rose to 357 million dollars in December 1939 as against 248 million in August. Furthermore, because a large share of the increased foreign demand came in the armament industries which had little unused capacity, the flow of demand for investment goods was increased, providing support to business activity. Hence, apart from the likelihood of inventory liquidation during the first half of 1940, output could be expected to remain somewhat above that existing before the outbreak of war.

From January to April 1940 the course of business was conditioned by these factors. Industrial production declined quite rapidly as the rate of inventory accumulation tapered off. From its peak of 126 (1935–39=100) in December 1939 the Federal Reserve index of industrial production fell to 111 in April. New orders remained below shipments, bringing a continuous decrease in backlogs of unfilled orders. As a reflection of the quiet prevailing in basic materials markets, prices of sensitive commodities weakened. By the end of March 1940 the Bureau of Labor Statistics' index of 28 sensitive commodity prices had lost half the rise experienced from the outbreak of war to the peak reached late in September.

Intensification of War Brings Economic Expansion.

With the German invasion of the Lowlands and France in May, the forces underlying the economic situation were completely changed. An immediate expansion of purchasing by the Allied Commission put an end to the possibility of a general liquidation of inventories. While the volume of exports did not increase during the rest of the year, foreign demand became a much more important factor in the business situation, since a marked shift from agricultural to industrial products increased the impact of foreign demand on industrial production and the flow of private investment in this country. The urgency of the Allied needs increased the pressure for a greater flow of armament goods. This was accomplished not only by increasing commitments but by more liberal financing of plant expansion by the Allied Purchasing Commission. As a result, new orders received by

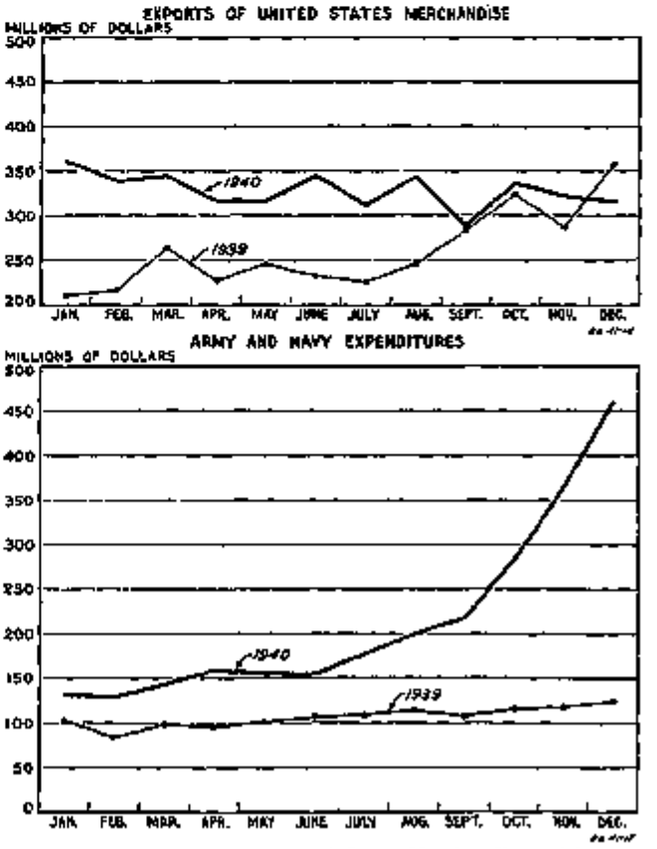

Figure 3.—Value of Exports of United States Merchandise and Army and Navy Expenditures, 1939 and 1940 (Exports, U. S. Department of Commerce; expenditures, U. S. Treasury Department).

manufacturers rose appreciably and industrial production once again turned upward.

Shortly after their initial move the German mechanized forces demonstrated great offensive power and raised a serious question as to the adequacy of military preparedness in this country. To settle all doubts on this question an extensive defense program was initiated. Plans for a two-ocean Navy were laid out, and a series of naval and air bases in the Atlantic Ocean was leased from Great Britain to increase the effectiveness of the fleet. The entire program included a tremendous increase in the air strength and mechanized equipment of the armed forces and an expansion in capacity for arms production that would insure adequate supplies in case of emergency. The first peacetime conscription bill in our history was passed, and an increase in the regular Army, excluding National Guard and Reserves, from 250,000 to 1,418,000 on June 30, 1942, was projected.

In order to plan for and coordinate the procurement of the raw materials, the finished armament equipment, and the productive capacity required for this defense program, a National Defense Advisory Council was organized. Soon a large volume of contracts was cleared by the Council and placed by the Army and Navy. Figure 3 shows that actual defense expenditures were increased sharply after the middle of the year. To facilitate the expansion of plant capacity required for armament production, the regulations regarding amortization allowances for tax purposes were liberalized so as to lessen the risk attached to investment in these facilities. Provision was made by the Reconstruction Finance Corporation to finance defense plant construction at low interest rates, and Government letters of intent to purchase were issued in order to facilitate the financing of production. Various corporations were set up by the Reconstruction Finance Corporation to secure adequate stock piles of strategic materials, and a program was initiated to facilitate the defense of and to improve the economic position of Latin America. In all these ways and many others, steps were taken to turn the Nation's energies to the problem of national defense.

This defense program provided a stimulus of sufficient magnitude to push the volume of economic activity continuously upward for the remainder of the year. New orders received by manufacturers rose abruptly, and unfilled orders piled up month after month despite a substantial increase in the volume of shipments. It is calculated that, between May and December, unfilled orders in the durable-goods industries more than doubled and that new orders in December still exceeded shipments by almost 40 percent. From its low point of 111 in April the Reserve Board's index of industrial production rose to an all-time high of 137 in December.

While the defense program and, to a much smaller extent, the enlarged export demand were the driving forces in this business upswing, all types of demand were quickly affected, and they, too, added to the general expansion of activity. Private investment in equipment was stepped up rapidly as the volume of production began to press upon capacity in many durable-goods trades. Activity in the construction industry rose sharply; the volume of contracts awarded soon reaching the highest figure in a decade. The rise in contracts for factory construction was outstanding, though the increase in private residential construction was also substantial. As employment and income moved upward, a considerable increase in consumer purchasing occurred, particularly in durable-goods lines where sales were augmented by an increase in consumer credit.

Inventory Accumulation in Late 1940.

During much of this period of rapidly expanding business in 1940, no substantial impetus was derived from a general accumulation of inventories. However, the establishment of the Priorities Board in September, together with a realization that the defense program would require capacity operations in many lines for several years, resulted in a substantial increase in the flow of new orders which partly represented a general lengthening of commitments. From that time to the end of the year, manufacturers' inventories moved up rather rapidly, the total increase representing an accumulation of 700 million dollars. During this period a fairly continuous strengthening of prices occurred, although the total movement, apart from a few commodities, was relatively small.

Hence, in this respect the last quarter of 1940 had a certain similarity to the corresponding period of 1939. But the significance of inventory accumulation in the general business situation had entirely changed by the end of the later year. First, despite a higher level of production, the rise in stocks during the final months of 1940 was considerably smaller than a year earlier. Second, a much larger proportion of the increased stocks represented goods in process—goods that would definitely be taken off the market upon completion. Third, the durable-goods industries were responsible for a much larger part of the inventory rise—the very industries most affected by the armament and investment demands. And, last, the primary impetus in the expansion of production had shifted from inventory accumulation as such to the defense program and British purchasing. Thus, while the increase of stocks in the last quarter of 1940 contributed to the rise in the volume of production, an expansion of output would have occurred in any case.

Larger Rise in Durable-Goods Output.

Both because of the character of the basic stimulants and because of their impact on the flow of investment, the greater share of the expansion during the year was contributed by the durable-goods industries. By the

end of the year near-capacity operations were characteristic of firms producing heavy goods, and the output of these industries relative to total production was the largest since 1929. While total industrial production as measured by the Federal Reserve index was up from the 126 of December 1939 to 137 in December 1940, the durable-goods component had risen from 140 to 163 over the same period. In contrast, activity in the nondurable-goods industries increased from 117 to only 122. The nature of the expansion may be appreciated from the fact that in the course of the year activity in the machinery industries was increased a third, railroad equipment firms were producing about 50 percent larger volume, operations at shipyards rose 86 percent, and aircraft production—measured in terms of man-hours worked—expanded almost two and a half times. While the output of iron and steel mills and of nonferrous-metals producers could not be much above the near-capacity volume of a year earlier, the flow of these materials into immediate consumption was much larger.

As may be seen in table 1, expenditures for durable goods, excluding naval vessels and certain special military equipment, increased 3 billion dollars in 1940 over the previous-year total for a gain of 16 percent. Total expenditures passed the 1937 figure by about 10 percent though remaining substantially under the 1929 volume. Well over half the total increase was contributed by producers' plant and equipment outlays. The latter rose by almost a third, with the total for the year only slightly under the peak 1929 volume. It may be noted that the two most important categories of producers' equipment expenditures, industrial and commercial, made new highs.

With operations at these levels in the durable-goods sectors of the economy, all measures of business activity showed 1940 to be a year of substantial recovery, with the year's results in many cases exceeding previous high marks. The Reserve Board's production index averaged 122, a 13 percent rise over the previous year and well above the former high of 113 recorded for 1937. Electric power output for the year was at a new high of 144,965 million kilowatt hours as compared with 130,336 million in 1939. There was an increase of 7 percent in freight carloadings, and, although they were still 31 percent below the 1929 record, the year's showing was good in view of the secular diversion of traffic to other types of transportation over the decade. Owing to the sharp drop in public construction during the first half of the year, construction activity in 1940 rose only moderately over 1939. However, the value of contracts awarded exceeded the 1939 volume by one-eighth, with a large volume of work carried over into the new year. In the retail field, total sales in 1940 are estimated at 45.5 billion dollars, an 8 percent increase over 1939 for the largest physical volume on record. The expansion in all these fields contributed to a substantial decrease in unemployment. Total nonagricultural employment in December of 37,168,000 was 4.8 percent or 1,500,000 higher than employment a year earlier.

Larger National Income in 1940.

The most comprehensive measure of the economic improvement in 1940 is that afforded by the national income—the measure of net production of commodities and services by all private and public enterprises. This net-output value figure advanced from 69.4 billion dollars in 1939 to 73.9 billion in 1940, a gain of 4.5 billion or more than 6 percent, according to preliminary estimates. Because price increases from 1939 to 1940

Table 1.—Estimated Expenditures for New Durable Goods[1]

[Millions of dollars]

Item	Plant and equipment				Plant				Equipment			
	1929	1937	1939	1940	1929	1937	1939	1940	1929	1937	1939	1940
Public and private	25,542	20,006	19,021	22,125	10,744	7,004	7,815	8,307	14,798	13,002	11,206	13,816
Public construction [2]	2,411	2,802	3,619	3,354								
Private	23,131	17,204	15,402	18,788	8,333	4,202	4,196	4,953	14,798	13,002	11,206	13,816
Producers':												
Total	10,126	7,570	6,107	7,884	4,531	2,204	1,870	2,316	5,595	5,276	4,231	5,568
Railroads	840	525	270	450	503	188	130	170	337	337	140	280
Electric power	774	400	373	485	397	172	160	210	397	228	213	275
Telephones	615	349	332	400	328	100	91	117	287	249	242	283
Transit	126	101	107	114	82	26	54	61	53	52	53	53
Other utilities	369	162	122	150	258	117	81	100	118	45	40	50
Mining and manufacturing	3,596	3,122	2,425	3,375	1,441	1,053	775	975	2,155	2,069	1,650	2,300
Agriculture	991	919	778	865	348	222	230	280	643	697	548	615
Commercial and miscellaneous	2,836	1,993	1,705	2,045	1,135	902	850	445	1,650	1,590	1,350	1,700
Consumers':												
Total	13,005	9,634	9,295	10,936	3,802	1,998	2,320	2,635	9,203	7,726	6,975	8,250
Housing	2,234	1,740	2,005	2,385								
Nonprofit institutions	568	168	225	250								
Passenger cars									3,293	2,726	2,275	2,950
Household goods									5,910	5,000	4,700	5,300

[1] Data for 1940 are preliminary; certain data for earlier years revised. In view of the defense program, it may be pointed out that the estimates for durable goods exclude naval vessels and special military equipment generally, while including (under public construction) outlays for military posts, yards, docks, and hangars, for defense housing, and for publicly owned productive plant. Government expenditures for equipment of ordinary commercial type, such as typewriters, machine tools, and motor trucks, are included in the estimates for private equipment expenditures. Heretofore, purchases of such equipment by governments have been relatively insignificant. Under the defense program, however, they are certain to expand materially, and it is hoped that they can be at least partially segregated in estimates for later years.

[2] Includes work-relief construction.

Source: Board of Governors of Federal Reserve System.

were slight, nearly all of this improvement in national income resulted from an increase in the quantity of commodities and services produced.

Since the major share of defense activity was concerned with industrial materials and equipment, the expansion of national income was paced by the commodity producing industries. These industries—agriculture, mining, manufacturing, and contract construction—in the aggregate provided a net product in 1940 valued at 2.8 billion dollars more than the figure for 1939, an increase of more than 10 percent. This was about three-fifths of the gain in total national income from 1939 to 1940, although the industries represented about one-third of aggregate national income in 1939.

Net production values also were higher in other lines, but by smaller margins. Government net output, exclusive of work-relief production, advanced from 8.1 billion dollars in 1939 to 8.6 billion in 1940. It is important to recognize, however, that defense orders placed with private business firms are included with the net production of other industries and not in Government output. The value of net product in distribution industries was up 700 million dollars, rising from 15.3 billion in 1939 to 16.0 billion in 1940 for a gain of nearly 5 percent. Service industries, usually the laggards during periods of change, improved more than 4 percent as net output values increased from 18.5 billion dollars in 1939 to 19.3 billion in 1940.

The 73.9-billion-dollar aggregate for national income in 1940 was the highest value reached in any year since 1929. It was 84 percent above the depression low of 40.1 billion in 1932 and 3.7 percent above the previous recovery high of 71.2 billion in 1937.

As part of this movement reflects shifts in the general

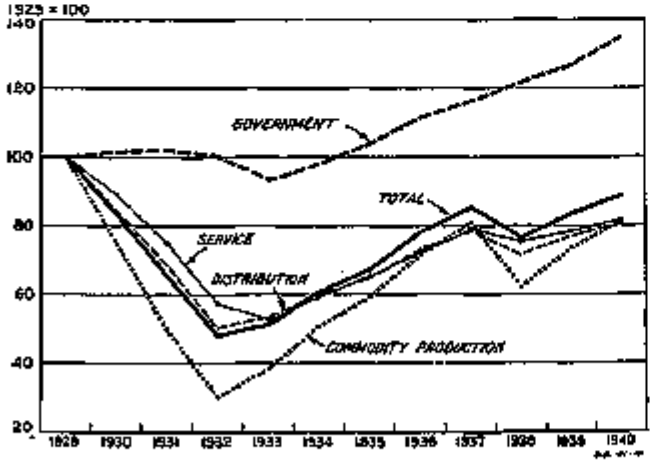

Figure 4.—Indexes of National Income by Major Industrial Sources, 1929–40 (U. S. Department of Commerce).

price level, however, changes in the quantity of net output have been less marked. In quantity terms, the national income declined about one-fourth from 1929 to 1932. The quantity of net output by all private and public enterprises had recovered to a point in both 1937 and 1939 that approximated the 1929 volume. From 1939 to 1940 the gain in real national income—a gain after allowance for price changes—was enough, roughly, to offset the increase in population from 1929 to 1940, so that per capita production was about as high in 1940 as in 1929.

Income Payments Also Rise.

Income payments to individuals during 1940 aggregated 74.3 billion dollars as compared with a total of 70.1 billion for 1939. As in the preceding year, the flow of income to individuals advanced sharply during

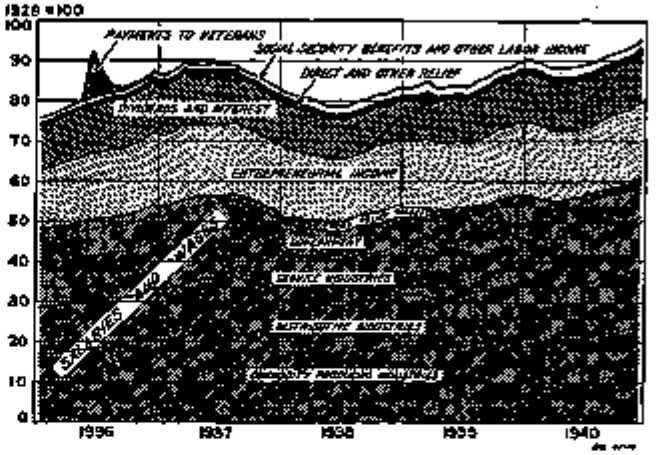

Figure 5.—Indexes of Income Payments by Type of Payment, Adjusted for Seasonal Variations, 1936–40 (U. S. Department of Commerce).

the second half and closed the year substantially above the preceding year-end figure. During the second quarter of 1940, income was disbursed at an annual rate of 73 billion dollars. By the final quarter it had advanced to 77 billion, reaching an annual rate of 78 billion in December. The rate for the final quarter of 1939 was 73 billion dollars.

The month-to-month movements in the various types of income were notably diverse in character. After correction for normal seasonal fluctuations, salaries and wages declined from the 1939 high of 88.9 (1929=100) recorded in December to 86.2 in April. Employment and pay rolls moved sharply upward in May, and, under the impetus of the defense program, the adjusted index of salaries and wages continued its upward movement through December when it reached a high of 96.0 for the year. As employees' income accounts for roughly two-thirds of total income payments, the 1940 expansion in pay rolls contributed substantially to the movement of income.

Dividend payments for the first quarter were 15 percent above the comparable period in 1939, the large increase over the preceding year continuing through the third quarter. There was a noticeable tendency for dividends to level off at the year-end, and for the last quarter disbursements were only 3 percent above the preceding year. These less favorable last-quarter comparisons were due partly to the high level of dividend disbursements achieved in the final quarter of

1939 and partly to a large-scale adjustment of earnings for increased taxes on 1940 corporate incomes. Unemployment compensation benefits, which first became an important source of income in 1938, rose sharply during the first half of the year and then declined markedly as employment increased, though the year as a whole showed a substantial rise over 1939.

The marked expansion in governmental activities consequent upon the inauguration of the defense program raised military and regular employment during the last quarter of 1940 13 percent above a year ago. This increase in consumer purchasing power occasioned by the expansion in governmental employment was, however, largely offset by a sharp reduction in income disbursements of an emergency nature. Thus, while regular pay rolls rose 70 million dollars between March and December, relief and unemployment benefits declined 50 million over the same period.

Advance in Profits.

On the basis of preliminary data it is estimated that net income of all corporations in the United States was about 25 percent higher in 1940 than in the preceding year. This comparison is based on net incomes adjusted for intercorporate items and taken after all taxes are deducted and, of course, it reflects the provisions made for the increased corporate income-tax rate and the excess-profits tax applicable to 1940 income.

Profits in the first quarter of 1940 were down substantially from the high last-quarter results in 1939. The second and third quarters brought successive moderate gains, and net income in the last quarter probably accounted for nearly one-third of the profits for the entire year, partly as a result of the usual seasonal pattern. As income reports are published only by a small percentage of all corporations, these estimates are preliminary and subject to revision. It is common for large corporations to publish such reports, however, and, since they represent a good proportion of the net income of all corporations, the estimates should be reasonably accurate.

Net income of manufacturing corporations was up about 30 percent, led by the metal and metal-products group with a gain of more than 50 percent. Profits in transportation advanced by about the same proportion as in total manufacturing. Gains in net incomes of mining companies were very substantial, and construction companies also showed some improvement. These lines are affected directly by the national-defense program, and the advances reflect substantially higher business volume in 1940. Gains also were general in other industries but usually were more moderate.

Production

Industrial Production

Total industrial production in 1940 was larger than in any previous year of our industrial history. The new Federal Reserve index of industrial production, which appeared during the course of the year and which provides better representation than did the old index for several important industries that have experienced substantial secular growth, averaged 122 (1935–39=100) for the year as a whole. This was 8 percent higher than the 1937 average and 11 percent above that for 1929, regarded throughout the past decade as the high-water mark of business activity in the United States.

Not only was total output the highest on record but at no time during the year did it reach a very low point, judged by the averages of previous good years. In April, after some curtailment in production schedules following the inventory upswing in late 1939, the Reserve Board's index stood at only 111. This figure, however, exceeded the averages for both 1929 and 1939, and was but 2 points below the average for 1937.

From its April low the index advanced to 121 by June and it remained at this level for 3 months. In October the index exceeded the former peak of 126 recorded in December 1939, and successive new highs were reached in the last 2 months of the year, the November and December figures being 132 and 137.

The trend and character of production in 1940 was formed largely by conditions emanating from the European war. During the first 4 months of the year production slackened as new orders fell below shipments and backlogs declined with the spread of the feeling that stocks had been overexpanded. (See figures 2 and 6.) According to Department of Commerce data, about $150,000,000 of manufacturers' inventories were liquidated between the end of February and the middle of the year, when such inventories reached their low point for 1940. This represented a decline of slightly more than 1 percent of the value of stocks on hand at the end of February, but manufacturers' inventories at the end of June were 13 percent higher than at the end of the preceding August. Thus, the decline in rates of inventory accumulation was a more important factor in the fall of production in the early months of 1940 than actual inventory liquidation. Although further liquidation would probably have occurred if the comparatively inactive phase of the war had continued, trade comment at the time indicated the likelihood that, as long as a state of war existed in Europe, stocks would be held somewhere above mid-1939 levels.

Even in this brief period of generally receding industrial activity, however, production continued to advance in certain lines. An enumeration of these industries affords evidence of the special influences which the war situation was beginning to exert. Of all component manufacturing industries included in the Federal Reserve Board index showing net production increases between August and December 1939, the only ones in which further significant net increases occurred between

December 1939 and April 1940 were (in order of size of increase) aircraft, shipbuilding, newsprint, fuel oil, and cigarettes. In addition, smaller increases of 2 percent or less were recorded in beef, ground wood pulp, and glass-container production. The relation between the war and aircraft, shipbuilding, and newsprint production is well known. As shown in figure 7, the increases in aircraft and shipbuilding occurred in a period in which durable-goods output generally dropped 19 percent, with iron and steel production falling 40 percent.

The trend of industrial production after April 1940, when the major turning point of the year was reached, was accompanied both by elements common to all periods of marked business expansion and by elements that were clearly exceptional and in some aspects unique. One of the most familiar elements, the wider movement of durable than of nondurable manufacturing production, is evidenced in figure 8. But even this picture has notable aspects. Although the index for nondurable goods has averaged higher than that for 1929 in every year since 1935, at no time until 1940 did the volume of durable-goods production exceed its 1929 peak. The relatively smaller recovery of production in the durable-goods lines prior to 1940 was, of course, a reflection of the smaller volume of capital formation.

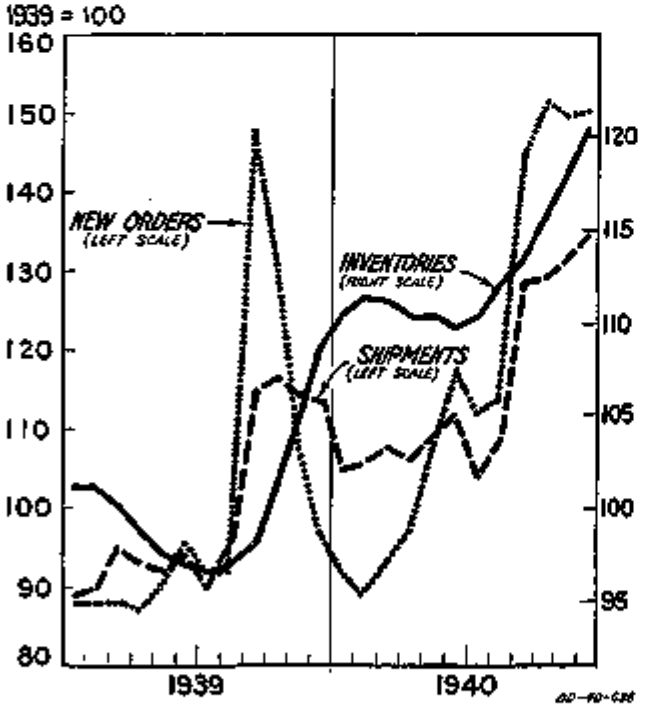

Figure 6.—Indexes of the Value of Manufacturers' New Orders, Shipments and Inventories, 1939 and 1940 (U. S. Department of Commerce).

NOTE.—Thirty-five units on the left scale (new orders and shipments) equal fifteen units on the right scale (inventories). The two scales were used to take into account the difference in dollar volume represented by the index numbers.

But in 1940 the defense program and heavy purchasing by the British Empire not only provided a substantial direct demand for durable goods; they also induced a large increase in nearly all types of capital formation.

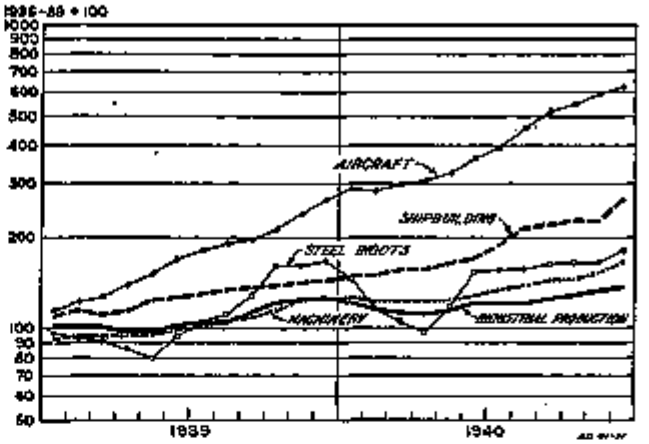

Figure 7.—Indexes of Industrial Production (Manufacturing and Minerals) and of Selected Manufactures, Adjusted for Seasonal Variations, 1939 and 1940 (Board of Governors of the Federal Reserve System).

Public and private investment in plant and equipment, consumers' investment in durable goods, and investment by business in larger inventories during the final quarter of the year—all were expanded under the propelling influence of defense and export needs. The end result was the rise of durable-goods production to record levels.

Record Production in Selected Industries.

Part of the response of industry to the above-mentioned stimuli is revealed by a list of the industries in which production for the year as a whole established new records. These are shown in table 2. Largest increases over previous records were scored in aircraft, tin, zinc, steel, and pulp and paper, all of which were strongly influenced by war developments. In order to give some indication of secular movement, the industries in table 2 are arrayed in order of percentage increase of 1940 over 1929. Although the Reserve Board's aircraft series does not extend back to 1929, it has been listed first in the table, for there can be little doubt that aircraft production in 1940, relative to 1929, was greater even than that of rayon; indications are that aircraft production in 1940 was about 8 times that of 1935. Of course the normal secular growth of the industry has been greatly augmented in the past 2 years by the very large orders flowing from the war abroad and our defense program at home. More exclusively secular forces have been at work in such industries as rayon, cigarettes, and pulp and paper, although record production of the latter was unquestionably related to the curtailment of pulp supplies from the Scandinavian countries. Production of glass containers has expanded rapidly since the repeal of the Eighteenth Amendment, despite increasing competition from tin containers and, more recently, from use of paper containers for milk.

Table 2.—Industries With Record Annual Production in 1940

[Federal Reserve indexes, 1935–39=100]

Industry	1940 (preliminary)	Previous record high	1929	1939	Percentage increase of 1940 over— Previous record high	1929
Aircraft	416	176 (1939)	(1)	176	136	.....
Rayon deliveries	180	128 (1939)	42	120	9	237
Glass containers	115	114 (1937)	75	110	1	53
Cigarettes	115	110 (1939)	76	110	5	51
Pulp and paper	122	113 (1939)	90	113	8	36
Crude petroleum	115	109 (1937)	90	108	6	34
Chemicals	114	112 (1937)	89	104	2	28
Tin deliveries	169	133 (1929)	133	96	27	27
Petroleum refining	113	111 (1939)	90	111	2	26
Rubber consumption	119	113 (1939)	96	113	5	24
Cotton consumption	120	131 (1927)	105	110	9	14
Manufactured foods	113	108 (1939)	101	108	5	12
Zinc shipments	130	117 (1936)	117	113	11	11
Steel ingots	143	133 (1929)	133	113	8	8
Printing and publishing	111	109 (1937)	104	106	2	7
Machinery	136	130 (1929)	130	104	5	5

[1] No data.

Producers' Goods.

Among producers' goods the output of machinery, which set a record during 1940, is of importance as a major component of capital formation. Owing to the wide variety and continual change in sizes and kinds of machinery and equipment, the task of measuring the physical volume of machinery production is extremely difficult, and until recently no generally accepted index of machinery production was available. The new industrial-production index of the Federal Reserve Board, however, includes a machinery component, constructed on the basis of man-hours of employment corrected for changes in output per man-hour. As noted in table 2, the index of machinery production averaged 136 (1935–39=100) last year, compared with 104 in 1939, a rise of 30 percent. The index was also 5 percent higher than that for 1929, the previous peak. Machinery production experienced a slight decline in the early months of 1940, concurrently with the decline in general industrial production, although it did not fall as much as the latter; by April the adjusted index had dropped only 3 percent from its temporary high in January. Between April and December the Board's index of machinery production advanced from 123 to its all-time high of 165, a rise of 34 percent. The December 1940 figure was 74 percent above the average for the first 6 months of 1939.

The special importance of machine-tool production in 1940 is evidenced in estimates of the production of some of the more important types of machinery, again using data on man-hours of employment. Estimates so derived indicate that although production of all the major classes of machinery was greater in 1940 than in the preceding year, 1937 production of electrical machinery and supplies, and of textile machinery, was slightly higher than that of 1940, while 1937 production of agricultural machinery may have been 25 percent higher. On the other hand, machine-tool production in 1940 appears to have been 50 percent higher than in 1937, and may have been as much as 75 percent higher than in 1939. These increases would have been even greater if additional machine-tool capacity had been available.

Data available currently on special items of machinery and equipment showed large increases in the final quarter, lifting activity in many cases well above the 1939 peak. Thus in October and November orders for foundry equipment were more than 60 percent higher than in the 2 best months of 1939. Similarly, orders for such equipment as iron and steel castings, electric overhead cranes, pumps, freight cars, and electric furnaces all soared in the last quarter of the year.

The sources of domestic demand for machinery and other durable manufactured producers' goods are to be seen in table 1, showing estimates of equipment expenditures by major industries. Private expenditures for durable-producers' equipment rose to $5,566,000,000 in 1940, an increase of $1,335,000,000 over 1939. Almost half of this increase occurred in mining and manufacturing industries—a more than proportional gain, since new investment in mining and manufacturing equipment accounted for only 39 percent of the total in 1939. More than half of the remaining increase, though less than proportional, occurred in the commercial and miscellaneous group. However, the largest percentage increase was in the buying of railroad equipment, which doubled in 1940 after being exceptionally low since 1937. Though total new investment in durable producers' equipment in 1940 was almost identical with that of 1929, its composition was radically different. Investment in equipment by the mining and manufacturing and the commercial and miscellaneous groups was larger in 1940, while that in each of the utilities was much smaller. Table 1 clearly indicates that the deficiency of investment in producers' durable goods in 1940, relative to

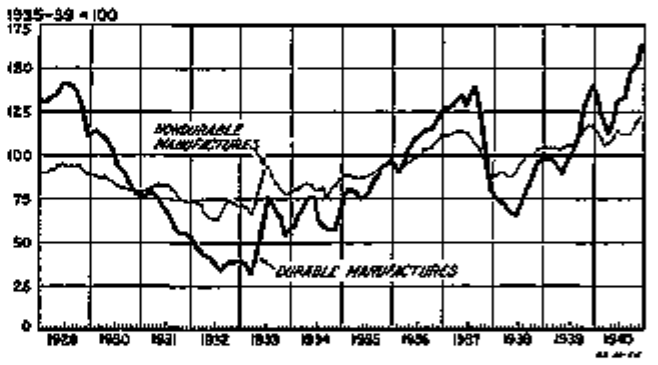

Figure 8.—Indexes of Manufacturing Production, Adjusted for Seasonal Variations, 1929–40 (Board of Governors of the Federal Reserve System).

NOTE.—Durable manufactures include iron and steel, machinery, transportation equipment, nonferrous metals and products, lumber and products, and stone, clay and glass products; nondurable manufactures include textiles and products, leather and products, manufactured food products, alcoholic beverages, tobacco products, paper and products, printing and publishing, petroleum and coal products, chemicals, and rubber products. The indexes are based upon physical volume.

1929, was in the area of plant rather than equipment expenditures.

Other Durable Goods.

Production of ingot steel in 1940 amounted to 65,247,000 net tons—7 percent above the previous high figure of 60,830,000 tons in 1929 and 18 percent above the total for 1937, the best year of the past decade. To reach the record 1940 figure, ingot production exceeded 1939 output by 26 percent. Owing to inventory accumulation in the latter months of 1939, steel operations declined during the first 4 months of 1940. Production in percent of capacity fell persistently until the last week in April; for April as a whole the rate (on a daily average basis) was at 50 percent as against 91 percent in the preceding December. Then followed an almost uninterrupted rise until the end of the year, with the monthly averages better than 90 percent in each of the last 4 months and December averaging 99 percent.

Much of the rise in production after April was due to additional foreign demand, largely British, resulting from increased needs and from the closing of sources of supply in Belgium and France. On a rolled basis, about 9,500,000 more tons of steel were produced in 1940 than in 1939, and the excess of steel exports in 1940 over those of 1939 represented about 55 percent of this additional production. Exports amounted to only 7 percent of estimated steel consumption in 1939, but represented 18 percent in 1940. Categories of domestic use whose increased takings were responsible for most of the remainder of the 1940 advance were automobiles, railroads, construction, and machinery. It is estimated that automobiles accounted for more than 15 percent of steel consumed, while construction accounted for somewhat less than 15 percent and railroads about 10 percent.

Steel capacity at the close of 1940, as announced by the American Iron and Steel Institute, was 84,152,000 net tons of ingots and castings annually, 3 percent above the 81,619,000 net tons available a year previously and 15 percent above capacity existing at the end of 1929. The increase of more than 2,500,000 tons included increases of 987,000 tons of Bessemer capacity, 844,000 tons of open-hearth ingot and castings capacity, and 703,000 tons of electric-furnace capacity. The increase in electric-furnace facilities was prompted largely by export and defense demand for high-grade alloy steel used in producing armaments and armor plate. It is estimated that electric-furnace capacity will exceed 3,500,000 tons by the end of 1941. The reported increases in open-hearth and Bessemer capacity include a substantial amount in existence a year ago but in need of renovation and repair, and hence not available for use at that time.

Paralleling the large advance in iron and steel production, the production and use of many of the nonferrous metals was at record or near-record levels, owing in part to their special importance in defense industries. Refined copper production of 1,033,000 tons was the highest since 1929. Although primary production of zinc in 1940 was 12,000 short tons less than that of 1929, shipments amounted to 696,497 tons in 1940, a rise of 16 percent. Similarly, tin deliveries of 115,497 long tons were at an all-time high. The excess of zinc shipments over primary production resulted in a sharp drop in refined stocks to 12,884 tons at the end of December, the lowest year-end figure since 1925. Reported stocks of refined copper of 142,772 tons at the year-end compared with 159,485 tons at the end of 1939 and 259,351 at the end of 1937. Tin stocks, on the other hand, were well above average; further increases were expected from the tin-purchase operations of the Metals Reserve Company, which also was importing reserve stocks of manganese ore, chromite, tungsten, and antimony.

The comparatively low stocks of zinc, lead, and copper are particularly significant in view of the record levels of demand that will probably be set in 1941. Production of all these metals was virtually at capacity before the end of 1940, but additional refining facilities were under construction for each. Moreover, in order to ease the copper supply situation further, and also to aid the copper-exporting countries of Latin America that have suffered from the British blockade of their continental markets, the Metals Reserve Company arranged in December for the purchase of 100,000 tons of copper, at a price of 10 cents a pound delivered at New York, from United States firms operating mines in Latin American countries.

Production of more than 400,000,000 pounds of ingot aluminum in 1940 was a new record high. With the expansion of capacity now contemplated, it is estimated that by the middle of 1941 output will reach an annual rate of almost 690,000,000 pounds, and a year later a rate of more than 880,000,000 pounds.

In line with the rise in practically all types of construction activity, production of most building materials advanced in 1940 to the best volumes of recent years. Lumber production increased 7 percent over 1939, and was about 4 percent above that in 1937. Portland-cement production was 7 percent higher than that of 1939 and 12 percent higher than that of 1937. Output of polished plate glass was above that for 1939 but less than production in 1937, while for common and face brick the reverse was true.

As mentioned above, shipbuilding activity was greatly accelerated by the war during 1940. From December 1939 to December 1940, the Federal Reserve adjusted index advanced from 144 to 268, a rise of 86 percent. In the course of the year, 53 merchant ocean-going vessels of more than 2,000 gross tons each, representing a total of 444,700 gross tons, were completed in United States shipyards. This compared with 28 vessels and 241,000 gross tons in 1939 and an annual

average of 117,000 tons in the period 1930–39. Moreover, at the end of the year, more than 180 oceangoing vessels, representing about 1,500,000 deadweight tons, were under construction. The number of vessels contracted for during the year was 94, with an estimated gross tonnage of 853,230. Of the merchant vessels completed or under construction, a number have been earmarked as naval auxiliaries, including almost half of those begun under the construction program of the Maritime Commission. In addition to these merchant vessels, 44 naval vessels having a displacement of 92,600 tons were completed and 513 naval vessels aggregating 2,274,600 tons displacement were under construction at the end of the year.

Shipbuilding in 1941 was expected to show a further increase. In December 1940 the British Purchasing Commission placed a contract for 60 cargo ships of uniform design, each of about 10,000 tons, while on January 3, 1941, the President announced an emergency shipbuilding program that will provide 200 cargo vessels in addition to the Maritime Commission's long-range program. To handle these programs, a further expansion of capacity was already under way at the end of the year.

The manufacture of consumers' durable goods during 1940 reflected the increased demand stemming from advances in employment and income. Referring again to table 1, expenditures on these goods are seen to have been 14 percent above those made last year, and while they were below expenditures in 1929, the lower prices prevailing this year indicate that the physical volume of such goods produced was the highest in history. This was true for most types of household appliances. Electric-refrigerator sales and vacuum-cleaner shipments were at an all-time high, while shipments of household washing machines fell only slightly short of the record volume for 1937. However, output of passenger automobiles numbered 3,692,328 cars, more than 825,532 or 29 percent over 1939, but 223,561 less than in 1937, and, of course, considerably less than the record year of 1929. But more than half of the difference between 1937 and 1940 output was attributable to decreased exports. Production was exceptionally high in the closing months of the year. Despite a record volume of retail sales in these months, dealer stocks of passenger cars and trucks were in the neighborhood of 425,000 units as the year ended—50 percent more than the number on hand at the end of 1939. As noted in the section on inventories, the desire of automobile manufacturers to clear the decks for defense orders, as well as the earlier change-over to new models, undoubtedly contributed to the comparatively high level of stocks at the end of 1940.

Minerals.

Mine production of the domestically produced metals, ferrous and nonferrous, generally experienced changes of slightly larger magnitudes than those of refined production, discussed earlier. In the case of lead, both mine production and shipments of finished metal rose 9 percent, but for both copper and zinc the increases in mine output were slightly above the advances in finished-metal deliveries. In the iron and steel industry the differences were much greater; an increase of 41 percent over 1939 iron-ore shipments compared with an increase of 33 percent in pig-iron production and one of 26 percent in steel-ingot production. The increased accumulation of ore stocks was conspicuous in iron because of the industry's need to provide, before the closing of the Lake ports for the season, supplies adequate for a winter in which steel operations were likely to be maintained at near-capacity levels.

Among the fuels, the rise of 15 percent in bituminous-coal production was chiefly the result of the advance in general business activity, though the fixing of minimum prices, in effect on October 1, led to a small increase in coal inventories at the old prices. Owing to this combination of factors, bituminous output in 1940 was higher than in any year since 1930. Coke production, advancing with steel activity, recorded a percentage increase over 1939 practically identical with the increase in steel-ingot production, making output for the year the largest since 1929. A rise of 8 percent in crude petroleum production in 1940 established a new high in this industry.

Nondurable Manufactures.

Among nondurable manufactures, which consist largely of consumers' goods whose output fluctuated much less widely than that of producers' goods, records were established in many areas during 1940. Of the major textiles, cotton consumption and rayon deliveries were higher than ever before, while apparel wool consumption of 309,449,000 pounds (scoured basis) compares with 318,971,000 in 1935, the best year since 1923, and with 371,200,000 in 1918, the highest for any year on record. Consumption of 8,058,000 bales of cotton in 1940 exceeded that of the previous peak in 1937 by 9 percent, and consumption during the last 2 months of the year was at an annual rate of well over 9,000,000 bales. Though most of this rise was the result of consumer and military demand, some of the output in the final quarter was in response to increased inventory purchasing.

Deliveries of 389,000,000 pounds of rayon filament yarn revealed a production excess of 8 percent over deliveries in 1939, the previous record year. Silk deliveries of 312,867 picul bales reveals a continuation of the decline of recent years, the 1940 figure being 18 percent below that of 1939 and 50 percent under the record total in 1929. It is particularly noteworthy that consumption of silk in hosiery, which has largely held its own or increased in recent years, declined substantially from 290,731 bales in 1939 to about

244,000 bales in 1940. At this latter figure, silk consumption in hosiery represented more than 90 percent of domestic silk consumption. (Domestic consumption equals deliveries minus reexports.) The 1940 decline, as distinct from the secular decline in other uses, may be largely ascribed to reduced hosiery production and to the competition of substitute materials, notably nylon. Of total shipments of women's full-fashioned hosiery, nylon accounted for 8.1 percent during the third quarter of 1940, 8.4 percent in October, 9.7 percent in November, and 11.8 percent in December—indicating an upward trend that will probably cut into the hosiery market for silk even more seriously in 1941.

Defense requirements for textiles did not affect all branches of the industry equally, being of largest relative importance in wool. Thus, the Textile Economics Bureau estimates that Army requirements to June 1940 will equal 27 percent of the average annual consumption of apparel-class wool in recent years. On the other hand, Army buying of cotton textiles to November 30—assuming that production be spread over the August–May period—would add but 3 percent to the normal annual demand for raw cotton. However, the problem of meeting Army requirements for cotton goods is not accurately reflected in this percentage relation to total cotton consumption, as the demand for selected heavy cotton goods such as duck, and combed-yarn cotton goods, has been particularly heavy. In these cases the pressure of sudden increases in demand led to price advances and, where feasible, to the shifting of equipment from other types of constructions.

Like textiles, production of manufactured foods was generally higher in 1940. Flour output fell off somewhat, but sugar meltings rose slightly as did the output of manufactured dairy products, while the slaughter of meat animals increased about 12 percent. In the case of beef and veal, and also lamb and mutton, the increases were small. But with the hog-corn ratio at unfavorable levels, Federally inspected slaughter of 8,709,000,000 pounds of pork (including lard) was 19 percent above that of the corresponding period of 1939. Production of most other manufactured foods also increased.

Shoe production declined in 1940, in consequence of reductions in the large manufacturers' stocks accumulated in 1939. Output of tobacco products and alcoholic beverages increased somewhat, as did rubber consumption. Paper production generally rose about 5 percent, while output of pulp was 8,562,000 tons, the largest on record and 26 percent above 1939. Smaller imports and larger exports created by the cutting off of Scandinavian supplies were instrumental in raising pulp production, though domestic demand advanced sharply irrespective of this development.

Agricultural Output and Income

The position of agriculture improved materially in 1940. Increased acreage over that of 1939 and substantially improved yields during 1940 resulted in the best harvests since 1937, while livestock production, continuing the expansion of the past several years, attained a new record volume. With higher farm prices and larger marketings, the aggregate cash returns of agriculture rose more than half a billion dollars, despite slightly smaller Government payments than in 1939. The marked improvement in the domestic demand for farm products was the dominant influence affecting farm prices and income during the year. Livestock-product prices responded more readily to the higher domestic demand than crop prices. Owing to curtailed exports and production in excess of domestic requirements, the statistical position of a number of major crops was weaker than in the preceding year. Government's commodity loans and purchases, however, served to support crop prices and income in the most serious instances of oversupply, while increasing surplus-removal operations also made an important contribution to agricultural income.

Crop Production and Supplies.

Crop production in 1940 increased nearly 4 percent over 1939. Although lower than in the peak year 1937, crop output exceeded that of every other year of the past two decades. The composite production index of 53 crops (1923–32 pre-drought average=100) rose from 103.9 in 1939 to 107.9 in 1940; the 1937 index was 112.6. Sizable gains occurred in the production of food grains, potatoes, vegetables, cotton, feed grains other than corn, and hay, while declines were reported in corn, fruits, and tobacco. Field-crop production, although up substantially from 1939, was lower in the aggregate than in 1920 and 1937, and approximated the volume of 1928. In contrast with field crops, vegetables and fruits have shown pronounced upward trends in production and consumption since 1920. Vegetable production attained a new high in 1940, and the output of fruits, while suffering a moderate setback, was the third highest on record.

Increased acreage and improved yields both contributed to expanded crop production last year. More than 4,000,000 additional acres were planted, while the absence of serious drought conditions decreased acreage losses in leading crops by nearly the same amount. The harvested acreage of 46 crops increased 8,000,000 acres or about 2.5 percent over 1939. The 1940 harvested acreage, however, was 30,000,000 acres less than at the peak attained in 1932, and 20,000,000 acres less than the 1923–32 average.

Acreage changes since 1932 reflect Federal production-control and soil-conservation programs, as well as the substitution of drought-resisting crops in drought

areas. Compared with the pre-drought average, reductions of 15,300,000 acres have been made in corn, 4,900,000 acres in food grains, 16,400,000 acres in cotton, and 360,000 acres in tobacco. On the other hand, increases of 5,500,000 acres have occurred in tame hay, 6,200,000 in sweet sorghums for forage and hay, and 7,000,000 acres in annual legumes. Compared with 1939, the 1940 acreage of tame hay was increased 2,900,000 acres, sweet sorghums 2,100,000 acres, and annual legumes 950,000 acres as against decreases of corn acreage by 2,000,000 acres and tobacco by 590,000. Acreages of cotton and wheat remained virtually unchanged, although these commodities also present serious surplus problems.

Crop yields in 1940 were substantially better than the year before and surpassed the previous high attained in 1937. Corn, rice, dry edible beans, sweet potatoes, soybeans, and certain fruits were exceptions to the general improvement of yields, but the average for 28 crops advanced from 113.8 to 118.5, compared with 117.7 in 1937 (1923–32=100). Especially notable were the 1940 yields obtained in tobacco, cotton, oats, potatoes, sugar beets, peanuts, and flaxseed. Favorable rainfall and temperature conditions contributed to this improvement, but over the past few years the increase has been due primarily to technological advances in plant types and in farming methods, as well as to abandonment and diversion of less productive acreage to non-crop uses.

Table 3.—Harvested Acreage, Production, and Yield of Selected Crops

Crop	Unit	1923–32, average	1939	1940	Percent change, 1940 over 1923–32
Corn:					
Acreage harvested	Mil. acres	102	88	86	−15.1
Production	Mil. bushels	2,583	2,809	2,449	−5.2
Yield	Bu. per acre	25.4	29.4	28.3	+11.4
Food grains:					
Acreage harvested	Mil. acres	63	59	58	−7.8
Production	Mil. tons	27	25	27	−1.0
Yield	Lb. per acre	804.5	850.7	928.0	+7.3
Cotton:					
Acreage harvested	Mil. acres	41	24	24	−40.5
Production	Mil. bales	14	12	12	−12.0
Yield	Lb. per acre	169.9	237.9	252.4	+48.6
Tobacco:					
Acreage harvested	Mil. acres	1.8	2.0	1.4	−20.1
Production	Mil. pounds	1,377	1,853	1,376	−0.1
Yield	Lb. per acre	770.4	920.1	994.6	+26.2

Source: U. S. Department of Agriculture.

The increase in yields has been marked in the case of crops subject to acreage reduction, so that the effect has been to offset considerably such acreage reduction, as shown in table 3. Cotton acreage, for instance, was 41 percent less in 1940 than in 1923–32, but the yield had increased from 170 to 252 pounds per acre, with the result that the cotton crop declined only 12 percent. Similarly in the case of corn, acreage reduction amounting to 15 percent has resulted in crop curtailment of only about 5 percent. The over-all effect of improved yields in 1940 over the 1923–32 average has been to increase aggregate crop production about 8 percent despite nearly 6 percent less acreage harvested.

As the abundant harvests of 1940 followed 3 years of above-average crop production, crop supplies are generally at or near the largest volumes of recent years. Supplies of wheat and oats are the largest since 1932–33, of barley the largest on record. The supply of corn, although moderately lower than last year, is the second largest since 1932–33. The present cotton supply has been exceeded only in 1939–40. Curtailed exports, moreover, have left a greater proportion of total supply available for domestic disappearance in the case of crops normally exported in considerable volume. The estimated total supplies (carry-over plus production) of leading crops in 1935–41 are shown in table 4.

Table 4.—Relative Supplies of Leading Crops, By Crop Years[1]

[Crop years 1935–36—1939–40=100]

Crop	1935–36	1936–37	1937–38	1938–39	1939–40	1940–41
Corn	92	85	106	114	124	122
Oats	106	89	105	106	94	115
Barley	110	80	88	102	110	131
Hay	100	89	94	110	107	112
Wheat	87	88	103	115	108	118
Cotton	83	84	108	109	110	100
Flue-cured tobacco	90	89	100	100	121	118

[1] Carry-over at beginning of crop year plus production. Based on data compiled by the U. S. Department of Agriculture.

Livestock and Livestock Products.

The volume of meat animals slaughtered in 1940 was substantially larger than in 1939, as a result principally of a 22 percent increase in marketings of hogs. The production of beef and veal under Federal inspection advanced about 3 percent, and lamb and mutton 1 percent. In consequence of the high level of corn prices relative to hogs prevailing during the past year, however, the spring and fall pig crops were reduced to 77.0 million head from 85.9 million in 1939. Slaughter supplies of hogs in the first 9 months of 1941 will be curtailed sharply, possibly by 15 to 20 percent. Reported intentions with regard to the 1941 spring pig crop indicate a further reduction which will limit supplies in the final quarter of the year. On the other hand, feeding operations have been increased 11 percent in the case of cattle and 6 percent in the case of lambs. Slaughter supplies of cattle may be only moderately larger until the late spring, when materially increased supplies will be marketed. In consequence of reduced hog marketings, however, total meat supplies in 1941 probably will be somewhat under those available last year.

The supply of poultry will also be smaller in the first half of 1941. Relatively unfavorable price ratios of chickens and eggs to feed induced a reduction of 12 percent in the number of chickens raised during 1940. The number of layers on hand in December was only slightly less than at the end of 1939, but the number of pullets to be added to laying flocks was down about 8 percent. Despite an anticipated decrease in the culling of flocks in response to high egg prices, egg production,

which increased 2 percent during 1940, probably will be lower in the first half of the current year.

Milk production, on the contrary, will continue the rising trend in evidence during recent years, as the number of milk cows is increasing and feed supplies are abundant. The gain in 1940 over production of 1939 was 2 percent.

Agricultural Exports.

In contrast with the experience during the World War, when agricultural exports more than tripled, foreign shipments of farm products have been sharply curtailed in the present conflict. Agricultural exports in 1940 declined to less than 520 million dollars from 655 million in 1939 and an average of nearly 780 million in 1936–38. By the late months of 1940, the monthly volume had dropped to only about 26 million dollars. Cotton and tobacco, which accounted for 57 percent of the value of agricultural exports in 1936–39, were affected most adversely by the closing of export markets. Cotton exports in the four crop years ending July 1939 accounted for more than 40 percent of production, and flue-cured tobacco exports for 50 percent of production.

Shipments abroad of United States cotton amounted to 243 million dollars in 1939 and 214 million in 1940. In both years exports were stimulated by an export indemnity program of the Surplus Marketing Administration, available from August 1939 to January 1940. About 5,900,000 bales of cotton were sold for export under this plan. Export shipments of indemnity cotton were largely made in the crop year 1939–40. Cotton exports in this period amounted to 6,920,000 bales (500 lbs.), valued at 349 million dollars, as compared with the total of 457 million for the two complete calendar years 1939 and 1940. On a monthly basis, cotton exports dropped from 60 million dollars in January 1940 to 8 million in June, and since that time have continued at extremely low levels. In the current crop year shipments are expected to be the lowest since the 1860's.

Exports of tobacco declined to 77 million dollars in 1939 and 44 million in 1940 from an average of 143 million in the preceding 3 years. Shipments of flue-cured tobacco, the principal export crop, dropped 100 million pounds from 1938–39 to 1939–40 and are expected to be even lower in the current crop year unless arrangements can be made for Great Britain to take a substantial proportion of stocks now being held for British account by the Commodity Credit Corporation. This credit agency purchased 160 million pounds of the 1939 crop of flue-cured tobacco and 205 million pounds of the 1940 crop.

In addition to cotton and tobacco, virtually every other category of agricultural exports has declined severely as a result of the war. Excluding cotton and tobacco, agricultural exports approximated 261 million dollars in 1940, compared with 335 million in 1939 and 316 million average from 1936 to 1938. By the closing months of 1940, the monthly rate was less than 18 million dollars. In the case of most other crops and livestock products, however, export markets are of distinctly secondary importance as compared with domestic demand.

Agricultural Prices and Income.

Prices received by farmers for agricultural products rose more than 5 percent from 1939 to 1940. This gain is attributable, in the main, to improved domestic demand. In the case of several crops, loan rates were also set moderately higher and surplus-removal operations of the Surplus Marketing Administration were increased. Sizable advances occurred in average prices of grains, cotton and cottonseed, truck crops, and dairy products. Meat-animal prices, on the other hand, averaged moderately lower, principally by reason of large supplies and reduced prices of hogs. The high point of farm-product prices subsequent to the outbreak of the war, recorded in February, was equaled again in December. Between these 2 months, however, crop prices receded while livestock product prices advanced.

Table 5.—Indexes of Prices Received by Farmers

(August 1909–July 1914=100)

Commodity group	Average			February 1940	December 1940
	1937	1939	1940		
All farm products	121	93	98	101	101
Grains	136	72	85	91	91
Cotton and cottonseed	95	73	81	85	79
Fruits	122	77	79	76	75
Truck crops	123	105	114	150	93
Meat animals	132	116	108	101	111
Dairy products	124	104	113	113	128
Chickens and eggs	111	94	96	98	122
Miscellaneous	139	95	103	107	102

Source: U. S. Department of Agriculture.

The behavior of prices in the case of a number of important crops is influenced by loan operations of the Commodity Credit Corporation. While season-average farm prices do not show an exact correspondence with loan rates (because of regional and quality differentials), the latter clearly support farm prices, as potentially price-depressing surpluses move into loan. Moreover, supplies are available from loan stocks at redemption values (loan rates plus costs) to meet increasing domestic demand, thus moderating price advances.

In the case of most livestock products, on the other hand, supplies are relatively inelastic. Futhermore, livestock-product supplies in 1941, with the exception of dairy products, are expected to be somewhat reduced, in contrast with the generally ample, and in several instances excessive, crop supplies. As a consequence, livestock-product prices have proven more responsive than crop prices to improving domestic demand during the latter half of 1940.

Higher farm prices, larger crop production, and in-

creased livestock-product marketings increased cash proceeds from the sale of farm products to approximately 8.4 billion dollars in 1940, 493 million more than in 1939. Farmers received substantially larger cash income than in 1939 from both crops and livestock products. With the addition of Government payments, cash farm income for 1940 was the second highest since 1929 and only slightly below the 1937 total. The cash farm income of 9.1 billion dollars (including Government payments) realized last year has been exceeded by sizable amounts in only two periods since 1910—in 1917–20, when income averaged 12.8 billion dollars, and in 1923–29, when the average was 10.6 billion. In both periods, farmers paid substantially higher prices for commodities used in farm production and for family maintenance.

Table 6.—Cash Farm Income, 1937–40

[Millions of dollars]

Source of income	1937	1938	1939	1940 *
Income from farm marketings	8,758	7,662	7,901	8,354
All crops	3,927	3,192	3,372	3,530
Grains	1,013	812	914	1,018
Cotton and cottonseed	883	647	629	660
Tobacco	321	294	269	240
All livestock	4,831	4,469	4,490	4,818
Meat animals	2,230	2,175	2,228	2,427
Dairy products	1,322	1,206	1,265	1,301
Poultry and eggs	918	761	718	728
Government payments	387	482	507	760
Total cash income	9,155	8,134	8,408	9,120

* Preliminary.

Source: U. S. Department of Agriculture.

The index of income from farm marketings, charted in figure 9, rose from an average of 69.2 (1924–29=100) for the first 8 (pre-war) months of 1939 to a high level of 84.0 in February 1940, then declined to 70.0 in June. After remaining at 71.0 in July and August, the index advanced in the seasonally important closing months of the year. The rate of cash receipts (excluding Government payments) in December equaled the seasonally adjusted February level of 84.0, and averaged 81.3 for the final quarter. Prospects at present are for further gains in 1941, with materially higher livestock-product prices and income.

Farm Commodity Loans and Surplus Removal.

The Commodity Credit Corporation in connection with its commodity loan and purchase programs has accumulated, or is in the process of accumulating, very considerable farm "surpluses," as illustrated in the case of cotton, corn, wheat, and tobacco in figure 10. More than 2.7 million bales of the 1940 cotton crop have been placed under loan, and a major part of this cotton is expected to remain under loan next August 1. At that time it is estimated that Government-owned and loan cotton will approach 11 million bales, approximating the record Commodity Credit Corporation stocks of August 1, 1939. The current corn loan of 61 cents per bushel will be available until September 1941, and may result in the sealing of 150 to 200 million bushels. Corn owned or sealed may amount to the record total of 600 million bushels on October 1. Wheat loans on the 1940 crop approximated 275 million bushels, of which possibly no more than 100 million bushels may be redeemed by July 1, indicating that the Commodity Credit Corporation probably will carry over a sizable quantity of wheat for the first time. In the case of flue-cured tobacco, moreover, the Commodity Credit Corporation is currently holding about 360 million pounds (farm weight) of the 1939 and 1940 crops, earmarked for subsequent sale and shipment to British buyers.

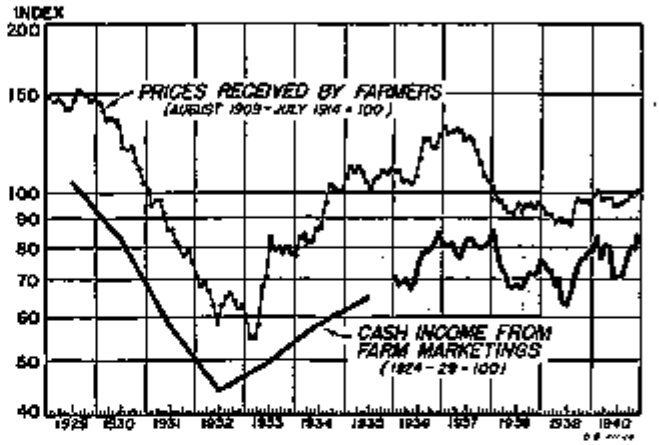

Figure 9.—Indexes of Prices Received by Farmers and Cash Income from Farm Marketings, 1929–40 (U. S. Department of Agriculture).

Note.—The index of cash income from farm marketings does not include governmental payments. Data are plotted annually through 1935 and monthly beginning with 1936. The monthly indexes, which are adjusted for seasonal variations, are not available prior to 1936.

The accumulation of agricultural supplies through loan operations has served to support farm income, especially income from crops, and to dampen both downward and upward fluctuations of income. As a result, crop income cannot be expected in the present situation to respond as readily to improving economic conditions as income from livestock products.

The Commodity Credit Corporation loan and purchase programs implement the operation of the "ever-normal granary." Supplies of cotton and certain tobacco types, however, are apparently excessive, and corn and wheat reserves at the end of the current crop year may well prove excessive also. Surpluses are indicated in the case of a considerable number of other agricultural products. Agricultural surpluses are dealt with, of course, not only through commodity loans, but also by means of production adjustment and control and surplus removal.

The removal of farm surpluses is carried forward by the Surplus Marketing Administration through (1) direct purchase and distribution, (2) domestic diversion, (3) export indemnities, and (4) food- and cotton-stamp plans. As an aftermath of the New England hurricane, the Surplus Marketing Administration also undertook a lumber-salvage program. The increasing magnitude of these programs may be indicated by

expenditures (see table 7) of 199 million dollars in the fiscal year 1939–40 in contrast to 110 million in the preceding year and 22 million in fiscal 1936–37. Outlays for this purpose may approximate 235 million dollars in the current fiscal year. Expenditures for direct purchase and distribution, amounting to 118 million dollars in 1939–40, will be reduced this year, while the consumer-stamp plans initiated in 1939 are being steadily expanded. Export indemnities in the current fiscal period will drop materially below the 53 million dollars paid to stimulate agricultural exports (largely cotton exports) in 1939–40.

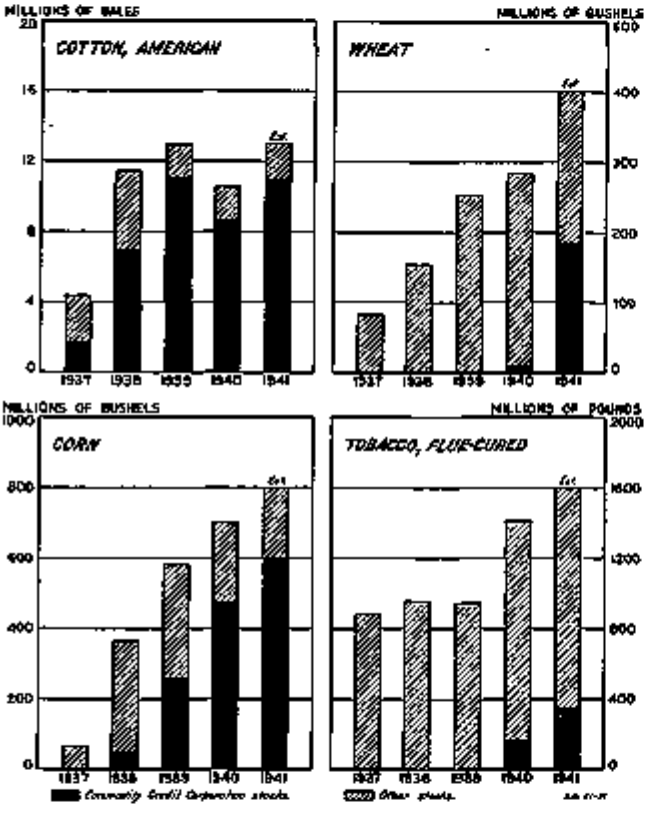

Figure 10.—Commodity Credit Corporation Stocks (Owned or Pledged Under Direct and Guaranteed Loans) and Other United States Stocks of American Cotton, Corn, Wheat, and Flue-Cured Tobacco, 1937–41.

NOTE.—Stocks of American cotton on August 1; corn, October 1; wheat and flue-cured tobacco, July 1. Data for all items are from the U. S. Department of Agriculture, except flue-cured tobacco for 1941 which is estimated by the U. S. Department of Commerce.

The direct purchase and distribution program and, more recently, the consumer-stamp plans are doubtless of greatest interest from the standpoint of the Nation's well-being, since the rationale of these programs is to increase the domestic consumption of agricultural products among low-income groups with the object of correcting important dietary and other consumption deficiencies. By December 1940, the food-stamp plan had been extended to 231 local areas and 2,822,000 participants, who received about 6,588 thousand dollars surplus commodity stamps during the month. The eventual inclusion of 4 to 5 million persons in the food-stamp plan is projected at the present time,

Table 7.—Federal Government Expenditures for the Removal of Farm Surpluses, by Fiscal Years Ended June 30 [1]

[Thousands of dollars]

Surplus-removal programs	1936	1937	1938	1939	1940
Direct purchase and distribution programs:					
Original purchases	[2] 14,581	[2] 15,804	[2] 41,926	57,605	106,145
Processing, transportation, handling, etc. [3]	9,853	2,608	6,956	10,067	11,690
Diversion programs	2,897	3,042	7,250	6,360	4,262
Lumber salvage program				7,364	5,143
Export programs	1,008	1,000	1,192	28,477	52,884
Stamp plans:					
Food					18,941
Cotton					121
Total expenditures for the removal of farm surpluses	28,435	22,321	58,324	109,873	199,246

[1] Statistics subject to adjustment.
[2] These figures may include a small amount for transportation expenses.
[3] These figures include transportation on commodities purchased during the preceding fiscal year for delivery during the reported year.

Source: Surplus Marketing Administration.

involving the issuance of an estimated 9.5–11.5 million dollars of surplus commodity stamps monthly.

Consumption

Retail Distribution

Net sales of retailers in 1940, as estimated by the Bureau of Foreign and Domestic Commerce, amounted to about 45,500 million dollars, according to data now available. This represents a rise of 8.3 percent over the 1939 total of 42,024 million reported by the Bureau of the Census.

In terms of the physical quantity, not only the 1940 total but the per capita volume of goods distributed exceeded that of 1929—the year in which dollar volume of goods sold was highest. The 1929 dollar volume was 48,330 million dollars, 6 percent above the estimated dollar volume in 1940, for a per capita average of about $398. Because the population rose approximately 8.3 percent between 1929 and 1940, estimated sales in the latter year were only $345 per person, or 13 percent less than in 1929. Retail prices of consumers' goods, however, fell considerably during the intervening years. For example, food prices averaged 27 percent lower in 1940 than in 1929, clothing prices 12 percent lower, and prices of house furnishings 10 percent lower. The cost-of-living index of the United States Department of Labor averaged 22 percent higher in 1929 than in 1940, and, while this index was not designed to measure changes in the level of retail prices generally, it may be used as a rough approximation to such a measure. Correcting per capita sales in dollar terms for changes in the cost-of-living index would indicate that per capita sales in 1940 were 6 percent higher than in 1929 on a physical-volume basis. As the cost-of-living index includes the relatively inflexible items of rent and services, it probably tends to understate the decline in retail prices of commodities. Hence, the increase over 1929 in physical volume of goods sold per capita in 1940

was probably greater than the indicated figure of 6 percent.

Estimates of the dollar volume of retail trade in 1940 by lines of business are shown in table 8, together with preliminary Census totals for 1939. The table reveals that increases were scored in all groups, from less than 1 percent for general stores to 25 percent for the automotive division. It is significant that with the exception of beer and liquor stores, which have shown an almost uninterrupted secular rise in sales since repeal in 1933, the largest three percentage increases in 1940 were in the automotive group, jewelry stores, and furniture and household-equipment stores, involving durable rather than nondurable goods, and involving also goods tending toward a luxury character. With rising income and employment, permitting higher levels of consumption, greatest relative sales increases may logically be expected in goods of this kind. Dealer sales of new passenger automobiles in 1940 amounted to 3,462,000 units, a rise of 27 percent over the number sold in 1939. The dollar volume of 1940 sales was more than 2,600 million dollars, or about a third higher than in the preceding year, indicating a rise in the average price paid per car.

Table 8.—Estimated Net Sales of Retailers, by Kinds of Business, 1939–40

Business group (Census classification)	Sales in millions of dollars		Percentage increase, 1940 from 1939	Percentage distribution of total sales, 1940
	1940 [1]	1939 [2]		
United States total	46,800	42,034	8.3	100.0
Food group	10,509	10,152	4.5	22.3
General stores (with food)	314	310	0.5	1.8
Beer and liquor stores	692	596	18.0	1.5
Eating and drinking places	3,715	3,521	5.5	8.2
General merchandise group	6,026	5,663	6.4	13.3
Department stores	3,687	[3] 3,448	7.0	8.1
Variety stores	1,035	976	6.0	2.3
Dry goods and general merchandise	762	722	5.5	1.7
Mail order (catalog sales only)	542	[3] 519	4.5	1.2
Apparel group	3,422	3,259	5.0	7.5
Automotive group	6,980	5,544	25.0	15.2
Filling stations	2,907	2,822	3.0	6.4
Furniture and household	1,983	1,734	11.5	4.2
Lumber, building, and hardware	2,953	2,734	8.0	6.3
Drug stores	1,632	1,562	4.5	3.6
Jewelry stores	410	362	13.0	0.9
Other stores	3,451	3,275	5.4	7.6

[1] Preliminary estimates by the Bureau of Foreign and Domestic Commerce.
[2] Preliminary Census totals.
[3] Mail-order (catalog) sales of general merchandise, estimated at 519 million dollars, have been deducted from the department-store total for 1939 released by the Bureau of the Census. It was necessary to estimate this item because the break-down of the department-store classification was not available at the time the above table went to press.

Relative increases in general-merchandise sales were roughly similar for all divisions of this group, ranging from 4.5 percent for catalog sales of mail-order houses to 7.0 percent for department stores. Since 1929 the various classes of general merchandise sales have experienced divergent trends, as figure 11 shows. This figure portrays graphically the fact that, even without correction for price declines, catalog sales of mail-order houses and sales of variety stores were higher in 1940 than in 1929. Larger mail-order (catalog) and variety sales have cut into the department-store, dry-goods, and general-merchandise group's market to some extent; the latter group accounted for 79 percent of total sales by the general-merchandise group as a whole in 1929 and 74 percent in 1940. Moreover, if sales of the retail stores belonging to mail-order houses be deducted from the department-store group (in which they are included) the relative decline in the department-store, dry-goods, and general-merchandise group is even more marked.

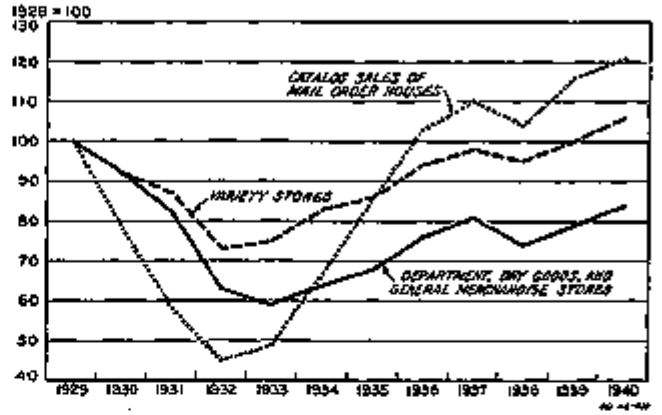

Figure 11.—Indexes of Net Retail Sales of General Merchandise, by Type of Outlet, 1929–40 (U. S. Department of Commerce).

Note.—Indexes of dollar values of sales for the years 1929, 1933, and 1935 are based upon actual census figures published by the U. S. Bureau of the Census. Indexes for other years are estimated by the U. S. Bureau of Foreign and Domestic Commerce on the basis of trends indicated by related currently published statistics. The series have not been adjusted to take into account the changes shown by a comparison of the census figures for 1935 and 1939.

Although retail trends within the year were somewhat mixed, with no clear-cut tendency being manifested in some months, the principal pattern was that of slight decline in the first half of the year, followed by marked expansion in the latter half. Thus, department-store sales, after adjustment for seasonal variation, averaged 3.6 percent lower in the first half of 1940 than in the last quarter of 1939, but in December 1940 were 12 percent above the average for the first 6 months. This general pattern is observable in sales by other general-merchandise stores—variety chains and mail-order houses—and such other retail divisions as apparel and furniture. As would be expected, the dollar volume of grocery and restaurant business did not recede so noticeably at the beginning or rise so much at the end of the year as did that of general-merchandise stores. On the adjusted basis, sales by certain retail divisions—conspicuously the automotive group—not only held previous gains in the opening months of the year but also scored signal advances. The Department of Commerce adjusted index of the value of passenger cars sold averaged 34 percent higher in the first quarter of 1940 than in the same period of 1939, and was above the average for any previous first-quarter except 1929 and 1937. Last-quarter sales in 1940, according to the adjusted index, were exceeded only by those of 1929 and 1936.

Consumer Credit

A contributing feature of the 1940 retail trade advance was the substantial increase in each of the two

broad classes of consumer credit—cash lending and retail credit. In recent years more than 30 percent of retail sales have been made on credit, two-thirds of which were characteristically on open account (regular charge account), the remainder being installment transactions. At the end of 1940, outstanding indebtedness on open account is estimated to have been about 2 billion dollars, most of which was to be liquidated in 60 to 90 days, being replaced, of course, by new obligations. Estimates of the total volume of open-account credit granted during the year are less accurate than estimates of installment credit, but it may be roughly put at 9 billion dollars for 1940, about 10 percent higher than in 1939.

Although the aggregate value of installment sales is smaller than that on open account, such sales exercise a greater effect on the level of business activity, giving rise to consumer debts of comparatively long duration which must be liquidated from future income. In 1940, installment sales continued the upward movement initiated last year, reaching a volume of approximately 5,000 million dollars—an increase of 20 percent over 1939 and 9 percent above the 1937 figure of 4,600 million dollars. Though 1940 installment sales had an aggregate value 23 percent below the all-time peak of 6,500 million dollars in 1929, the physical volume of goods sold in 1940 under installment plans showed a much smaller change. Actual indebtedness of consumers arising out of installment purchases was approximately 3,000 million dollars at the end of 1940. About 50 percent of this was due on automobile contracts, the largest part being with sales finance companies.

Cash Loans.

The bulk of retail sales arising from installment repayment credit is financed either by retailers themselves or by agencies specializing in sales financing. Perhaps as much as two-thirds of loans made by personal-finance companies are for purposes other than the original purchase of goods. However, small-loan agencies of various types, including personal-loan departments of commercial banks, have made steady advances into the field of retail financing through direct cash loans to consumers.

At the end of November 1940, installment-loan outstandings of regulated small-loan companies and of industrial-banking companies totaled 765 million dollars, indicating that the 1940 volume of these loans will be 12 to 15 percent above 1939. Consumer loans of industrial-banking companies and personal-finance companies are believed to represent about 50 percent of the total made by all consumer-financing agencies. Thus, consumer indebtedness on cash loans, including those extended by personal-finance and industrial-banking companies, credit unions, personal-loan departments of commercial banks, and unregulated lenders, and also including FHA (title I) loans, was roughly estimated to be 1,600 million dollars at the close of 1940. This may be compared with 1,126 millions at the end of 1937 and 634 millions at the end of 1930, the latter being somewhat higher than the figure for 1929. The growth of consumer loans to record levels in the past decade may be attributed in some measure to the pressure of private capital seeking profitable investment in that channel, the various financial groups interested having materially aided the popularization of consumer borrowing.

Wholesale Trade

In the field of wholesale trade, 1940 data were available only for service and limited-function wholesale firms, which usually account for about two-fifths of the total business. Sales by these groups in 1940 are estimated at 26,500 million dollars, 12.5 percent more than those in the preceding year. As in the case of retailers, all groups within the service and limited-function class showed increased business, though advances in individual lines varied widely in magnitude from 3 percent for groceries and foods to 28 percent for automotive supplies, 30 percent for metal and metalwork, and 30 percent for waste materials (including scrap). Following the three last-named groups the next largest increase was in the composite group for machinery, equipment and supplies. Moreover, wholesale business in electrical goods and jewelry also rose substantially. Hence, the general increase was similar to that in retail trade, being paced by sales of durable goods. Among nondurable goods those that showed the greatest increases were coal and coke, beer, wines and liquors, and paper and paper products.

The rise in estimated wholesale trade was greater than the advance in retail sales during 1940. This may be due in part to the difference in statistical coverage of the two fields, the retail estimates representing practically the entire field of retailing, as opposed to a coverage of less than half of the wholesale field. A more likely explanation, however, is that wholesale business can be expected to fluctuate more widely, as wholesale trade reflects not only the trend of retail sales but also increases or decreases in retail inventories and (to the extent that manufacturers buy from wholesalers) increases or decreases in manufacturers' inventories.

The combined index of wholesale commodity prices of the United States Bureau of Labor Statistics averaged 2 percent higher in 1940 than in 1939—indicating that the rise in the dollar volume of wholesale trade slightly overstates the increase in the physical volume of goods sold. The estimated increase in retail sales in 1940 was likewise affected in the same direction, owing to strengthening of retail prices.

Inventories

Although the expansion of business activity during 1940 was dominated less by accumulation of inventories than had been the case in both the 1939 and 1937 upswings, the net increase over the year was a considerable one. A general lengthening of commitments in the fall and winter months, superimposed upon the increased stocks technically required by the arms program and the expanded volume of consumption, raised inventories to an unusually high level. Much of the rise occurred in manufacturing industries, as shown in figure 12, where inventories are estimated to have increased by about 1,200 million dollars. Net accumulation by retailers and wholesalers was also substantial, stocks rising by 274 million and 120 million dollars, respectively. The value of total inventories at the end of 1940 is estimated at roughly 20,600 million dollars as against 19,300 million a year previously, a gain of 7 percent. The physical increase was somewhat smaller than this as a result of a 1 percent rise in wholesale prices.

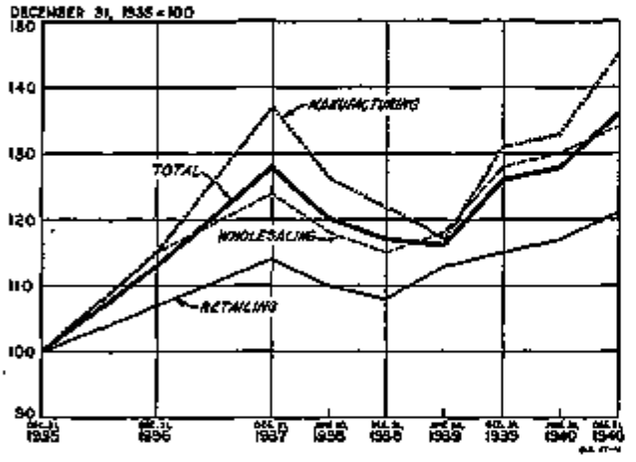

Figure 12.—Indexes of the Value of Manufacturing, Wholesaling, Retailing, and Total Inventories for Selected Dates, 1935–40 (U. S. Department of Commerce and Dun and Bradstreet, Inc.).

NOTE.—Indexes for manufacturing inventories through June 1938 and for wholesaling and retailing inventories through 1939 are Dun and Bradstreet's series. Values of the Dun and Bradstreet's index of manufacturing inventories subsequent to June 1938 were spliced with U. S. Department of Commerce "Industry Survey" figures on the basis of overlapping data for the end of 1938 and the middle and end of 1939. All index values for 1940 are U. S. Department of Commerce estimates based upon sample data.

It will be recalled that the industrial advance in the final quarter of 1939 was chiefly engendered by a wide inventory movement. Stocks valued at more than 1,100 million dollars were added by manufacturers at that time. The further delivery of orders placed during the fall buying wave continued this accumulation into the first quarter of 1940, though at a greatly reduced rate. Despite intensification of the war, the second quarter proved to be one of modest liquidation in both manufacturing and trade inventories as business viewed with less optimism the prospects of large war demand. However, even in June, when liquidation had run its course, stocks were slightly above those at the end of 1939, and of course were much above pre-war levels.

It was in the second 6 months of 1940 that renewed accumulation developed, reaching large proportions in the final quarter when manufacturers invested about 700 million dollars in additional inventory. The basis for this accumulation in the latter part of 1940, as well as its form and its relation to the cyclical movement of business, differed markedly from the inventory upswing in late 1939. These questions have been discussed in detail in the "Introduction" to this Review, describing the cyclical development of business during the year.

The rise in manufacturing inventories during 1940 was largely attributable to the durable-goods industries. Holdings by manufacturers in nondurable-goods lines were only 3 percent higher at the end of the year than at their earlier peak in February, while holdings in the durable-goods fields — including iron and steel, machinery, automobiles, and other transportation equipment—were 13 percent higher. The largest increase in the final quarter was in the transportation-equipment group, which included important and expanding defense industries, such as shipbuilding, aircraft, and railway equipment. Expanding ordnance production, reflected initially in accumulation of stocks, was mainly responsible for the increase in the railway-equipment division.

In the retail field, year-end to year-end inventory changes ranged from a drop of 2 percent for dry-goods and general-merchandise stores to an increase of 22 percent for motor-vehicle dealers. The latter group includes some used cars and equipment, as well as new cars. New-car and truck inventory alone advanced to a much greater extent, being 50 percent higher at the end of 1940 than a year previously. This reflected a number of factors, including the earlier change-over to new models and the special situation created by the defense program, which provided automobile manufacturers with an incentive to build up stocks as quickly as possible. The net rise for the year in retail inventories, exclusive of those in the hands of motor-vehicle dealers, is estimated at 3 percent. In dollar terms this represents an accumulation of slightly more than half of the increase for all retailing, estimated at 274 million dollars.

Construction

Construction expenditures in 1940 were moderately larger than in 1939 and well above any of the annual totals from 1931 to 1938. At 9,985 million dollars, according to preliminary estimates of the Department of Commerce for total public and private operations, the amounts expended for construction in 1940 contributed significantly to the strength of the general business situation during the year. Allowing for lower construction costs now as against predepression levels, the physical volume of construction in 1940 may have

amounted to as much as seven-eighths of the annual volume during the peak years of the 1920's. Total dollar expenditures, however, were less than three-quarters as large. Annual construction estimates are presented in summary form in table 9 and shown graphically in figure 13.

Table 9.—Estimated Value of Private and Public Construction, Including New Construction, Maintenance, and Work-Relief Construction [1]

[Millions of dollars]

Item	1926-29, average	1932	1933	1937	1938	1939	1940 [2]
New construction, total	10,702	3,561	2,307	5,470	5,189	[3] 6,072	6,580
Private	8,363	1,767	1,091	3,443	3,072	[3] 3,485	4,031
Public [4]	2,339	1,794	1,216	2,027	2,117	[3] 2,587	2,549
Non-Federal	2,149	1,334	707	858	1,103	[3] 1,314	1,143
Federal	190	460	509	1,169	1,014	[3] 1,273	1,406
Work-relief construction, Federal [5]			114	775	1,202	1,032	805
Maintenance, total	2,960	1,762	1,543	2,579	2,502	2,567	2,600
Private	2,195	1,138	1,016	1,854	1,763	1,820	1,850
Public [4]	765	624	527	725	739	747	750
Non-Federal	717	581	485	666	679	684	685
Federal	48	43	42	59	60	63	65
Total construction	13,662	5,323	3,964	8,824	8,893	[3] 9,671	9,985
Private	10,558	2,905	2,107	5,297	4,835	[3] 5,305	5,881
Public [4]	3,104	2,418	1,857	3,527	4,058	[3] 4,366	4,104
Non-Federal	2,866	1,915	1,192	1,524	1,782	[3] 1,998	1,828
Federal	238	503	665	2,003	2,276	[3] 2,368	2,276

[1] Comparable data beginning with 1915 are available in Construction Activity in the United States, 1915-37, Domestic Commerce Series No. 99, supplemented by "Estimates of Construction Activity," Survey of Current Business, September 1940, both published by the Bureau of Foreign and Domestic Commerce.
[2] Preliminary.
[3] Revised.
[4] The distinction between non-Federal and Federal is made on the basis of the ultimate source of funds for the work. See table 11.
[5] Work-relief construction not elsewhere included. For a complete description, see table 5, "Estimates of Construction Activity in the United States," Survey of Current Business, September 1940.

Significant changes took place in many of the components of the construction total between 1939 and 1940, although the over-all increase amounted to only 3 percent. New private construction advanced more than one-half billion dollars—a 16-percent rise featured by a 12-percent increase in residential building and a 69-percent gain in factory construction. In 1940 both new private residential building and new factory construction were at slightly more than half of their 1926–29 averages, although the former was nearly eight times its 1934 low and the latter more than four

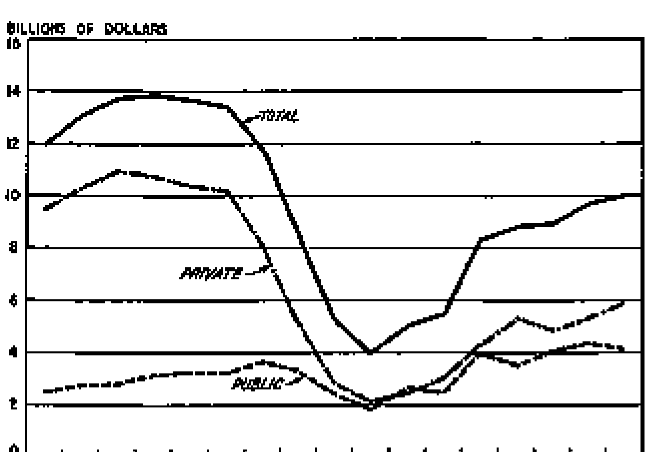

Figure 13.—Estimated Value of Total, Private, and Public Construction, 1924–40 (U. S. Department of Commerce).

times its 1932 low. Expenditures for public construction, on the other hand, were reduced by more than 200 million dollars between 1939 and 1940. The decline in the public construction total may be ascribed to curtailment of work-relief construction, since this type of activity fell off by 227 million dollars. New public construction, exclusive of work-relief, showed little change in total despite a pronounced shift in composition. The PWA program, after contributing strongly to public-work expenditures of 1939, was substantially completed in the first half of 1940, and expenditures for non-Federal construction consequently fell sharply as between 1939 and 1940. The offset was provided by the national-defense construction initiated in the second half of the year.

Table 10.—Estimated Value of New Construction Activity, by Principal Uses or Functions of Projects [1]

[Millions of dollars]

Item	1926-29, average	1932	1933	1937	1938	1939	1940 [2]
New private construction:							
Residential (nonfarm)	4,066	641	314	1,530	1,615	1,860	2,077
Nonresidential building:							
Commercial	1,157	263	135	296	311	319	373
Factory	640	78	28	381	192	200	337
All other nonresidential	689	220	105	185	233	266	246
Total	2,486	561	267	862	736	785	956
Less nonresidential building by utilities	73	22	10	29	24	25	31
Total private nonresidential building, excluding utility	2,413	539	257	833	712	760	925
Farm construction [3]	468	125	175	360	345	340	360
Public-utility construction [4]	1,416	462	345	920	400	[5] 525	669
Total new private construction	8,363	1,767	1,091	3,443	3,072	[5] 3,485	4,031
New public construction:							
Nonresidential	620	408	191	440	518	712	345
Residential				92	35	81	200
Military and naval	14	34	36	37	62	[5] 119	475
All other	1,705	1,352	989	1,457	1,502	[5] 1,675	1,529
Total new public construction	2,339	1,794	1,216	2,027	2,117	[5] 2,587	2,549
Total new construction	10,702	3,561	2,307	5,470	5,189	[5] 6,072	6,580

[1] Comparable data beginning with 1915 are available in Construction Activity in the United States, 1915–37, Domestic Commerce Series No. 99, supplemented by "Recent Developments in Construction Activity," Survey of Current Business, August 1939, and "Estimates of Construction Activity," Survey of Current Business, September 1940, all published by the Bureau of Foreign and Domestic Commerce.
[2] Preliminary.
[3] Covers farm construction for all purposes and includes repairs; does not include labor performed by farm operators (owners or tenants) or regularly employed farm laborers.
[4] Private ownership only. Includes nonresidential building by utilities.
[5] Revised.

The data presented in table 10 are estimates of the annual value of construction work performed, as measured by actual expenditures for labor, materials, and other items. Construction may also be measured in terms of work initiated during the year as shown by available current series on contracts awarded or building permits granted. Monthly indexes of the value of construction contracts awarded, for total construction and residential construction and adjusted for seasonal variation, are presented in figure 14. The index of the total declined in the early months of 1940 to a low point in March 1940 which was slightly under the 1939 minimum reached in the middle of the year. Beginning

in June, however, total awards expanded sharply, and by the end of the year they had attained the highest level since 1930. The increase in the second half of 1940 corresponded in its general aspects to the rise in construction awards that occurred in the last half of

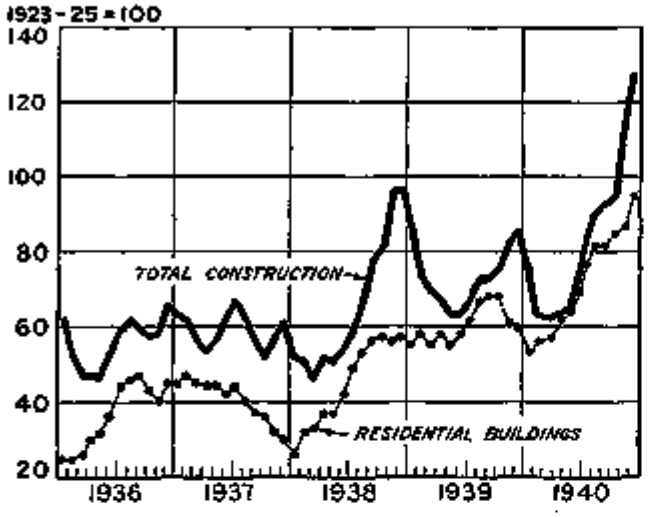

Figure 14.—Indexes of the Value of Construction Contracts Awarded in 37 States, Adjusted for Seasonal Variations, 1936–40 (Computed by the Board of Governors of the Federal Reserve System from Data Compiled by the F. W. Dodge Corporation).

NOTE.—Indexes are based upon a 3-month moving average centered at the second month.

1938. It is noteworthy, nevertheless, that the advance in the latter part of 1938 was due almost entirely to the larger volume of public construction awards under the PWA program, whereas the expansion in 1940 is attributable in considerable measure to the greater volume of public awards under the national-defense program. Increased awards for private residential, commercial, and factory building construction also contributed to the gains made in the last half of 1940.

A substantial volume of construction on which work had started was carried over into the early months of 1941. Construction placed under contract in January 1941 continued active, according to the data compiled by the F. W. Dodge Corporation, and was running well ahead of last year. Additional defense construction to be placed under contract in the early months of the year should be noted, and rising national income and increased industrial activity may be expected to stimulate the demand for private construction, both residential and nonresidential. Consequently, barring a substantial advance in costs, a considerable increase in construction volume may be anticipated in 1941, and total construction activity may well exceed 11 billion dollars.

Residential Construction

Expenditures for new residential construction in 1940 are estimated at 2,277 million dollars, an increase of nearly 17 percent over the previous year. The expansion in 1940, as shown in table 10, was made up of a gain of 12 percent in private residential work and an increase of 147 percent in publicly owned residential construction. The increase in public residential construction reflected mainly the further expansion of the United States Housing Authority program and was largely independent of actual expenditures under the defense housing program initiated in the latter months of the year. New private residential building in 1940 continued the upward movement that carried construction expenditures of this kind from a low of 272 million dollars in 1934 to 2,077 million in 1940. The 1940 rise is explainable in part by the expanded national income total—higher than in any year since 1929—in part by the absence of a strong upward movement in residential construction costs, and in part by the continued accessibility of funds for financing home mortgages as indicated by the maintenance of low interest rates. Moreover, vacancy surveys during 1940 showed no marked increase in the proportion of vacant residential units.

Monthly residential building awards adjusted for seasonal variation, shown in figure 14, rose rapidly in the first 8 months of 1940 to a point well above the peak reached in the latter part of 1939. The rise in these awards during 1940 was almost identical with that during 1938. In both years awards rose rapidly in the first 8 or 9 months, leveling off to some extent in the closing months of the year. During 1938, however, residential awards advanced from a relatively low volume, whereas in 1940 the increase in awards began from a level approximating the highest point reached in 1938.

Work was started on approximately 545,000 new dwelling units in nonfarm areas of the United States during the year, according to estimates of the Bureau of Labor Statistics—an increase of 17 percent over the 1939 total of 465,000 units. The 1940 figures set a 12-year record and exceeded by almost 10 percent the 1929 total. The increase in the number of units started occurred mainly in privately financed residential construction. However, the volume of public residential construction started was moving upward toward the close of the year as a result of the defense housing program which was responsible for 23,000 Federally financed units under way by the end of December 1940.[1] The Federal Housing Administration considered 1940 its most active year and indicated that approximately 173,000 privately financed new homes were started under FHA inspection last year, compared with 142,000 in 1939.

The outlook for private residential building in 1941

[1] These figures for the number of dwelling units started are not comparable with the estimates of the value of work done during the year, though they serve as the basis for the value estimates for private work. The former relate to work started, the latter to the value of work done, as measured by expenditures for materials, labor, and other items. In addition, the value estimates include nonhousekeeping residential structures and additions to residential structures, which are not covered by the estimates of the number of family dwelling units on which construction was started.

is favorable, and a further rise may be expected if the factors that affect this type of activity continue their present trends. Since it is unlikely that the influence of an increased national income in 1941 will be completely offset by a general price advance sufficient to reduce the family income that is available for shelter, it is quite possible that 1941 expenditures on new private residential construction may exceed the 1930 total of nearly 2,200 million dollars. If, however, the costs of constructing residential buildings should increase sharply, perhaps because of the introduction of priorities or rationing of construction materials, the outlook for a continued rise would be less favorable.

A decided expansion in public residential construction expenditures seems likely in 1941 in view of the large appropriations already made for public housing as part of the defense program. Appropriations totaling 240 million dollars are available to Federal agencies for the construction of public housing units in this connection. An additional 10 million was advanced by the President to The RFC Mortgage Company to provide equity capital for investment in housing projects. Part of the 240 million dollars was provided in a supplemental Army and Navy appropriation bill which made 100 million available to the President for allocation to the War and Navy Departments for the construction of housing units on or near military and naval establishments, or near industrial plants engaged in defense activities. In addition, the Lanham Act (Public, No. 849, 76th Congress) made available 150 million dollars to the Federal Works Agency to provide housing for defense workers, 10 million of which was for reimbursement of funds previously advanced to the RFC Mortgage Company. The United States Housing Authority still has a substantial volume of work to be completed, and it is estimated that expenditures by local housing authorities for USHA-aided projects will be about 30 percent greater in 1941 than in the preceding year. Under special powers, this agency has been able to allocate approximately 41 million dollars of its funds for defense housing construction.

Private Nonresidential Construction

Private nonresidential construction totaled more than 950 million dollars in 1940, compared with 785 million in 1939—the sharp increase in factory construction expenditures and a moderate increase in commercial building accounting for most of the gain. Other types of private nonresidential building, such as educational, religious and memorial, hospital and institutional, and social and recreational building—the volume of which has varied little during recent years—showed little change or declined moderately.

Expenditures for new factory construction, exclusive of public projects under the national defense program, are estimated at 337 million dollars for 1940, an increase of more than 68 percent over the preceding year's total. Despite this striking advance, private factory construction was about 14 percent below the 1937 total of 391 million dollars and was less than one-half of the 1929 peak. Further large gains are expected in 1941, since only the initial effects of higher industrial activity and defense preparations were reflected in actual expenditures for new plants during 1940.

Factory construction awards under stimulus of the national-defense program were of unusually large volume in the last half of 1940. In both November and December factory building contracts awarded in 37 States reported by the F. W. Dodge Corporation were larger than in any month since 1925 when these data were first reported. In the last 6 months of 1940 total awards for this type of construction, including public projects noted below, were three times the volume of awards in the first half of 1940. In view of the large volume of work started at the end of the year, a considerable expansion in actual construction operations is already indicated for the early months of 1941.

Commercial building operations increased 17 percent from 1939 to 1940—larger construction expenditures for store buildings, garages, and service stations being chiefly responsible for the gains in this category. Vacancies in office buildings continued high, the National Association of Building Owners and Managers reporting that 16.7 percent of office space in 111 cities was vacant on October 1, 1940. This relatively high rate affords a partial explanation of the continued low level of this type of construction activity in most areas of the country.

Public Construction

The year 1940 witnessed important developments in public construction. It marked the virtual completion of PWA projects during the first half of the year and a subsequent large-scale expansion in military and naval construction. The Federal Government for the first time embarked on extensive construction activities to provide facilities for the manufacture of essential war materials and, as already mentioned, further enlarged its housing program.

Total public construction in 1940 did not attain its 1939 peak because of declines in PWA construction expenditures and in work-relief construction. The decline in expenditures on PWA projects is evidenced by the drop in new construction expenditures for non-Federally-owned projects shown in table 11 from 2,034 million dollars in 1939 to 1,550 million in 1940. On the basis of "reported project costs," as compiled by the Public Works Administration, it is estimated that expenditures on PWA non-Federal projects were a little more than 400 million dollars in 1940, compared with more than 1 billion dollars in 1939. Work-relief construction fell from 1,032 million dollars in 1939 to 805 million in 1940.

Direct Federal construction, as a result of the growth

Table 11.—Estimated Value of New Public Construction Activity, by Ultimate Source of Funds and by Ownership [1]

[Millions of dollars]

Item	1920–29, average	1932	1933	1937	1938	1939	1940 [2]
I. Ultimate source of funds: [3]							
Total public funds	2,339	1,794	1,210	2,027	2,117	[4] 2,587	2,549
Non-Federal funds	2,149	1,334	707	858	1,103	[4] 1,314	1,143
Federal funds	190	460	509	1,169	1,014	[4] 1,273	1,406
Federal projects	100	283	312	624	475	[4] 553	909
Federal aid to highways	64	177	196	289	219	[4] 180	172
PWA grants	.....	.....	2	256	192	430	160
Work-relief included in new public construction	.....	.....	.....	190	138	110	75
II. Ownership:							
Total public ownership	2,339	1,794	1,210	2,027	2,117	[4] 2,587	2,549
Non-Federal ownership	2,235	1,511	904	1,503	1,042	[4] 2,034	1,550
Federal ownership	106	283	312	524	475	553	999

[1] Comparable data beginning with 1915 are available in Construction Activity in the United States, 1915–37, Domestic Commerce Series No. 99, supplemented by "Recent Developments in Construction Activity," Survey of Current Business, August 1939, and "Estimates of Construction Activity," Survey of Current Business, September 1940, all published by the Bureau of Foreign and Domestic Commerce.
[2] Preliminary.
[3] Federal funds include expenditures for Federal projects and Federal grants (but not Federal loans) to States and localities for construction purposes. Non-Federal funds include amounts raised by States and localities from current taxation and from borrowings (whether from private investors or from the Federal government).
[4] Revised.

in defense activities, increased almost 450 million dollars in 1940, but this gain was not sufficient to offset the declines in other types of work. As may be seen from figure 15, most of the increase was in military and naval construction (including productive facilities), which totaled 475 million dollars for the year. Defense construction accounted for approximately one-half of all direct Federal construction work, whereas in the previous 8 years military and naval construction averaged only 12 percent of all direct Federal work.

In view of the volume of work remaining unfinished at the end of 1940, the value of construction to be done on defense projects, including defense housing activities, during 1941 is likely to exceed 1 billion dollars, even without additional appropriations. The National Defense Advisory Commission estimated that the enacted program for defense construction, as of November 9, totaled almost 2 billion dollars. This includes 631

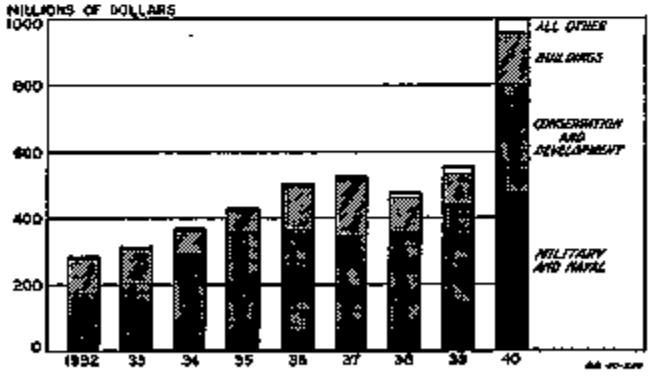

Figure 15.—Estimated Direct Federal Public Works Expenditures, 1932–40 (U. S. Department of Commerce).

NOTE.—Categories do not include Public Works Administration grants and loans for non-Federal projects, Federal-aid highway grants, United States Housing Authority projects, or work relief expenditures on local projects.

million for cantonment construction; 520 million for the construction of "productive facilities"; 337 million for air bases; 258 million for seacoast defenses and other military construction; and 240 million for defense housing. Other Government-financed construction activities related to defense will further increase the volume of construction in 1941. The Reconstruction Finance Corporation has authorized loans of 175 million to private industry for the construction and equipment of manufacturing plants, most of which have been made to firms producing aircraft and related products.

Costs of Material and Labor

While there was a fairly substantial rise in construction costs during the latter months of 1940, there was

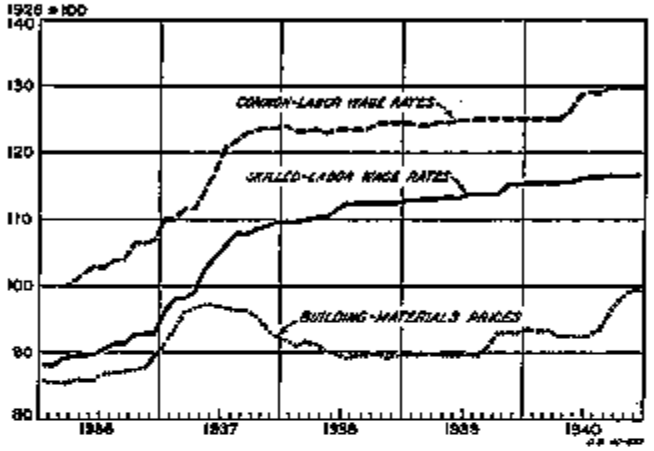

Figure 16.—Indexes of Skilled-Labor Wage Rates, Common-Labor Wage Rates, and Building-Materials Prices, 1936–40 (Wage Rates, Engineering News Record; Building-Materials Prices, U. S. Department of Labor).

little evidence that this factor was exerting a restraining influence on construction activity. Available indexes show that both material and labor costs changed very little during the first 8 months of 1940. In the remaining months, however, certain of the components rose sharply. The Bureau of Labor Statistics index of building material prices rose from 92.5 (1926=100) in July 1940 to 99.3 percent in December—the highest point attained by the index since December 1926. Nearly all of this increase was occasioned by a 25 percent rise in the wholesale price of lumber. Construction wage rates for both skilled and unskilled labor were at new highs at the end of 1940, according to the indexes of hourly rates compiled by the Engineering News-Record—though not much above the levels prevailing in recent years. Common-labor wage rates increased approximately 4 percent from April to September 1940 but leveled off at the close of the year, while skilled-labor wage rates rose slightly throughout most of the year.

Hence, it is the possible trend of costs, rather than the level at the year-end, which obscures somewhat the outlook for the construction industry in 1941. If costs do not rise so materially as to become an effective deterrent, it appears highly probable that the requirements of the defense program and the general advance in business activity will result in a volume of construction well above that of 1940.

Public Utilities

Electric Power

The electric power industry has continued to expand throughout most of the past decade, but its growth in 1940 was in most respects the greatest since 1929. Output, capacity, customers, revenue—all were the highest in the history of the industry. In the week ended December 21, output had risen to a new record of 2,911 million kilowatt-hours, 10 percent higher than the peak week in 1939. Moreover, all indications point to a similar increase in 1941. In preparation for this, a volume of new capacity comparable to that of the late twenties was under construction at the year-end.

Sales of electrical energy were about 118.5 billion kilowatt-hours, an increase of 13 billion over 1939 and the largest annual gain on record. All of the consuming groups required more energy during the year. Industry, however, accounted for about two-thirds of the increased demand and took almost 50 percent of the total energy sold. Sales to urban residential consumers advanced about 12 percent, while electricity generated or purchased by cooperatives under the Rural Electrification Administration more than doubled. Though purchases by commercial firms, which use electricity for lighting and small amounts of power, showed a 7 percent increase, the relative importance of this type of consumption declined slightly.

The advance in residential sales continued a trend in existence over the past decade, the 12 percent gain being a typical average for the latter half of this period, though larger than that in 1939. The addition of 900,000 new customers created some of the increased demand, while more widespread ownership and use of electrical appliances was responsible for the rest. This latter factor raised average consumption per household from 897 kilowatt-hours in 1939 to 952 kilowatt-hours in 1940, an increase larger than that of the previous year. Of major importance in load building are electric refrigerators, ranges, and water heaters, all of which are heavy consumers of electricity. Sales of these and other electric appliances were much above the previous year and in most cases were the largest in history. This was the result of the relatively high level of income and substantial price reductions, both of which created a wider market for these commodities. The larger domestic consumption in turn lowered average kilowatt-hour cost from 4.0 cents to 3.8 cents. Part of this decline was automatic because of graduated rate schedules. However, some downward adjustment of rate schedules themselves also occurred, partly induced by the increased consumption. Nevertheless, the number of such reductions was smaller than in other recent years.

Table 12.—Revenue per Kilowatt-Hour of Electrical Energy Sold, by Consumer Classes, 1929–40

[Cents]

Year	Residential	Farm	Commercial		Total
			Small light and power	Large light and power	
1929	6.20	2.54	4.24	1.38	2.57
1930	6.00	2.61	4.13	1.41	2.66
1931	5.74	2.70	4.17	1.47	2.75
1932	5.57	2.98	4.14	1.53	2.85
1933	5.49	2.85	4.07	1.38	2.68
1934	5.30	2.66	3.90	1.25	2.53
1935	4.99	2.86	3.82	1.20	2.46
1936	4.66	2.77	3.60	1.19	2.37
1937 [1]	4.30	2.20	3.41	1.14	2.17
1938 [1]	4.14	2.47	3.20	1.20	2.20
1939 [1]	4.00	2.42	3.19	1.12	2.16
1940 [1, 2]	3.81	2.47	3.05	1.04	2.04

[1] Revised figures to conform with Uniform System of Accounts prescribed by Federal Power Commission.
[2] 10 months actual, 2 months estimated.

Source: Edison Electric Institute.

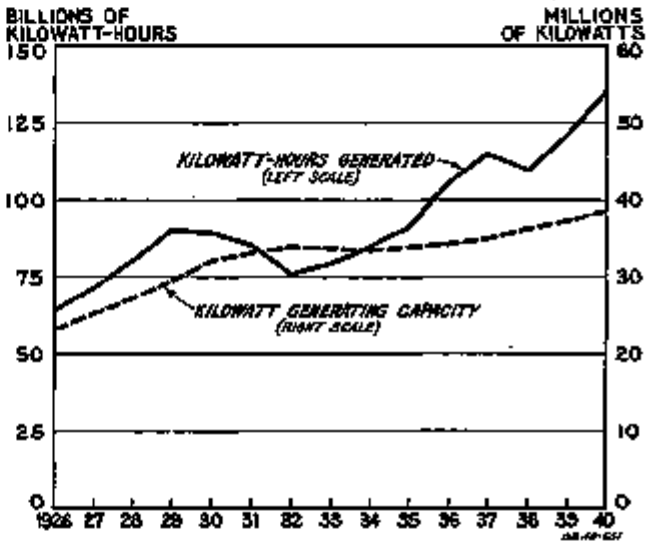

Figure 17.—Total Kilowatt-Hours Generated and Total Generating Capacity, 1926–40 (Edison Electric Institute).

Note.—Data represent kilowatt-hours generated during the year and the generating capacity on December 31.

The chief reason for the 17 percent rise in the consumption of electricity by industry lay in the substantial advance of industrial output. Moreover, the nature of the demand created by the defense program, with its emphasis on durable-goods production and more particularly on metals, was calculated to increase the demand for power to a greater extent than was usual in past industrial upswings.

Expansion in Capacity.

The electric power industry was materially aided in handling the heavier demand in 1940 by the addition of about 1,350,000 kilowatts to the capacity of private and municipal plants, which brought total installed capacity to 38,727,000 kilowatts. (See fig. 17.) With the exception of 1937, this was the largest installation since 1930 and represented an investment of about 596 million dollars. However, this figure is expected to be surpassed by a wide margin in both 1941 and 1942. The Electrical World estimates prospective installations on the part of private industry alone at

2,250,000 kilowatts in 1941. This is to be supplemented by an exceptionally large addition of 1,650,000 kilowatts to municipally and Federally owned generating facilities, a principal part of which is the Bonneville project in the Pacific Northwest. Of course, not all of the equipment will constitute additional capacity, some of it being needed to replace that ready for retirement. Nevertheless, the increased plant and equipment should raise capital expenditures in 1941 to around 700 million dollars, which compares favorably with the volume of such expenditures in the latter twenties.

Table 13.—New Capacity Added, Capital Expenditures, and Security Issues by the Electric Power Industry, 1936–40

Year	Net addition to generating capacity (thousands of kilowatts)	Capital expenditures	Security issues [1]	
			New capital	Total
		Millions of dollars		
1936	371.6	289.7	59.7	1,331.9
1937	700.3	455.5	82.0	645.7
1938	1,370.1	482.0	129.1	964.0
1939	1,046.4	430.0	16.2	960.3
1940	1,350.0	596.6	82.4	989.5

[1] Not including common-stock rights and warrants.

Sources: Net addition to generating capacity is based on data published by the Edison Electric Institute; capital expenditures are from the Electrical World; security issues are from the Commercial and Financial Chronicle.

Despite the large over-all increase in installed capacity scheduled for 1941, the advance expected in both defense and civilian requirements caused some concern over the adequacy of capacity in specific areas. The industry cooperated with the Federal Power Commission in an effort to review its position in this respect, the Commission dividing the country into 48 different areas and surveying the power situation in each. Though the Commission concluded that capacity is adequate for handling loads expected this year, it also revealed the need for further expansion in some areas if deficiencies were to be avoided at the peak of the defense program in 1942. Possible deficiencies were reported for nine important districts, for an aggregate of 1,500,000 kilowatts. Since 18 months to 3 years are required for provision of new generating facilities, part of the deficiency would need to be relieved in some other fashion. Thus, construction of additional high-voltage transmission lines was planned in order to interconnect adjacent areas and pool available reserves for more general use. In this way, and through construction of new capacity, it was hoped that repetition of the power shortage experienced in 1917 and 1918 could be avoided.

Railroads

For the Nation's railroads, industrial expansion in 1940 meant heavier traffic, larger revenues, and improved income. Although carloadings fell somewhat short of the 1937 total, the ton-miles of freight carried was the largest in a decade. Gross revenues, net operating income, and net income were the highest since 1930. In comparison with 1929, as shown in table 14, however, operating revenues remained nearly one-third lower, net operating income was down more than 45 percent, and net income amounted to less than one-fifth of the 1929 figure. With nearly one-third of railway mileage in receivership, and net operating income in 1940 only about 110 percent of fixed charges, the financial position of American railroads remained far from satisfactory. The downward trend in available railroad equipment was halted during the year, new equipment about offsetting retirements. However, only a small reserve of facilities remained to accommodate the industrial expansion expected in 1941 and 1942.

Table 14.—Operating Revenues and Income, Fixed Charges, and Net Income, Class 1 Steam Railways (Excluding Switching and Terminal Companies), 1929–40

[Millions of dollars]

Year	Gross operating revenues	Operating ratio	Net railway operating income	Fixed charges	Net income
1929	6,379.3	71.76	1,261.7	680.4	894.3
1930	5,281.2	74.43	868.9	671.0	523.9
1931	4,188.3	78.97	533.6	660.2	194.6
1932	3,125.5	76.57	390.2	664.1	[1] 138.4
1933	3,096.4	72.66	474.3	665.7	[1] 5.9
1934	3,271.6	74.64	462.7	653.1	[1] 16.9
1935	3,481.9	75.11	496.8	648.9	7.5
1936	4,052.7	72.33	667.3	653.2	164.6
1937	4,166.1	74.57	590.2	628.0	93.1
1938	3,588.5	78.35	372.9	614.4	[1] 113.5
1939	3,995.0	73.05	588.6	607.7	83.2
1940	4,296.4	72.91	677.4	[2] 605.7	[2] 170.0

[1] Deficit.
[2] Estimated.

Sources: Interstate Commerce Commission and Association of American Railroads.

Traffic and Earnings.

Freight carloadings last year increased 7.2 percent, surpassing the 1939 volume in every month except October. The seasonal pattern, which usually gives rise to a traffic peak in October, was less pronounced than the year before because coal shipments were not concentrated so much in the fall months as usually. Hence, only 837,651 cars were loaded in the highest week of October 1940, compared with 856,289 carloadings at the October 1939 peak. Freight loadings for the year amounted to 36,353,609 cars, compared with the 1937 total of 37,670,464 cars. However, the railroads moved more ton-miles of freight during 1940 than in any other year since 1930, as average load per car and average length of haul have increased.

Freight revenues in 1940 increased 8.8 percent over 1939. Average freight revenue per ton-mile, however, declined from 0.973 cent in 1939 to approximately 0.94 cent in 1940, the lowest rate of record with the exception of 1937, when the average was 0.935 cent. The drop since 1929 has been more than 0.13 cent per ton-mile. Freight rates were generally maintained during 1940, the decline in average ton-mile revenue reflecting principally a shift in the composition of freight traffic toward lower revenue tonnage.

Passenger traffic in 1940 was more than 3 percent larger than the year before. However, passenger revenues were off slightly from 1939 as coach fares in the Eastern District were reduced from 2.5 to 2 cents per mile after March 24, 1940. The "grand circle" (coast to coast and return) excursion fares were continued, and special reductions were granted uniformed personnel of the armed forces at the Christmas season.

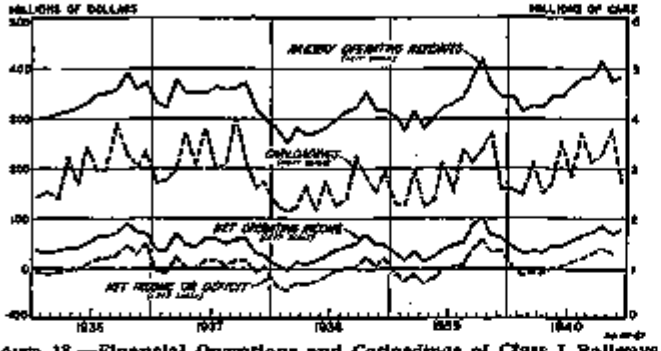

Figure 18.—Financial Operations and Carloadings of Class I Railways, 1936–40 (Financial Operations, except for December 1940, Interstate Commerce Commission; Carloadings and Financial Operations for December 1940, Association of American Railroads).

NOTE.—Data for financial operations exclude switching and terminal companies, while data for carloadings include cars loaded in switch service movement and given to Class I roads for the road haul. Data for "Net income or deficit" for December 1940 were not available in time to include them in this chart.

Total operating revenues for the year were at the highest level since 1930, showing a gain of 7.5 percent over 1939. Net operating income was up 15.0 percent. Net income, after a small increase in income from other sources and slightly reduced fixed charges, advanced in the first 11 months by somewhat more than the gain in net operating income. Net income for this period was 138.5 million dollars, up 80.5 million dollars from returns in January–November 1939, while for the full year it probably exceeded 1936 net income of 165 million dollars by 5 to 10 million dollars. Financial results last year, however, were in sharp contrast with 1929 net income of 897 million dollars.

In 1936, and again in 1940, the railroads demonstrated close control of operating expenses, despite lower traffic levels than in 1929 and the importance of such relatively fixed costs as depreciation. The ratio of total operating expenses to gross operating revenues in 1940 improved to 71.91 percent, compared with 72.33 in 1936 and 71.76 in 1929. While increasing railway tax accruals, which approximated those of 1929, have restricted returns in recent years, the most difficult feature of the railroad situation (other than the decline in demand) has continued to be the heavy capitalization of earning power represented by fixed charges. These charges have been reduced by less than 80 million dollars since 1929, and in 1940 approximated 90 percent of net operating income. Plans of reorganization approved by the Interstate Commerce Commission, or proposed by examiners, for railroads in reorganization proceedings before the Commission, would scale down the fixed charges by 91 million dollars, but this would still leave aggregate fixed charges only about one-quarter less than in 1929.

Equipment and Operations.

Though the supply of railroad equipment remained relatively unchanged this past year, the position of the railroads in this respect must be viewed in the light of the decline in supply as compared to that available a decade ago. This is illustrated, in the case of freight locomotives (steam) and cars, in table 15. The number of locomotives of all types in service in Class I railways at the end of 1940 was 28 percent less than in 1929, the number of steam freight locomotives 27 percent less, while aggregate tractive force had declined about 20 and 18 percent, respectively. The number of freight cars has dropped 28 percent, with average capacity per car increased by less than 9 percent since 1929. Reflecting the drastically curtailed rate of railroad purchases, only about 3,000 new locomotives and 355,000 new freight cars have been installed on Class I railways since 1929.

Table 15.—Equipment Expenditures and Freight Equipment, Class I Steam Railways (Excluding Switching and Terminal Companies), 1929–40

Year	Equipment expenditures		Freight equipment		
	Maintenance	Ordered from manufacturers [1]	Steam locomotives in service Dec. 31	Cars in service Dec. 31	New cars installed
	Millions of dollars				
1929	1,202.9	397.1	33,605	2,306,204	84,894
1930	1,019.8	148.5	32,900	2,205,741	76,909
1931	817.0	28.9	32,053	2,229,846	12,462
1932	618.9	2.5	31,197	2,172,474	2,948
1933	599.7	6.9	28,925	2,061,331	1,879
1934	637.9	60.9	28,330	1,962,072	24,103
1935	681.9	35.7	27,462	1,859,945	5,903
1936	783.6	222.6	26,953	1,781,317	42,941
1937	828.7	173.3	26,517	1,766,512	75,968
1938	679.5	74.0	25,956	1,721,998	13,417
1939	785.9	188.8	25,058	1,671,712	26,428
1940	819.0	253.4	[2] 24,450	[2] 1,660,000	65,445

[1] Estimated by Railway Age. [2] Estimated.

Sources: Interstate Commerce Commission, Association of American Railroads, and Railway Age.

Although the installation of new equipment has been restricted, extensive retirements of obsolete equipment have served to raise average capacity and efficiency. Another important factor affecting the utilization of freight equipment favorably during the past decade has been the substantial increase in the average length of haul. Moreover, with a heavier load per car, and more cars per freight train, the net load per train rose to 852 tons in 1940 (first 11 months) compared with 804 tons in 1929. Freight trains also have been speeded up, and move more miles per active locomotive-day. Serviceable freight cars carried 647 net ton-miles each day, on the average, in 1940 (first 11 months) compared with 582 ton-miles in 1929. Thus, as a result of improvements in average capacity and utilization, the railroads are able to transport more freight in proportion to their available equipment than they could a decade ago.

This ability to produce more freight transportation per unit of equipment than in 1929, though doubtless capable of further gradual improvement, does not, however, preclude the possibility of an equipment shortage if traffic should rise sharply above the peaks prevailing in late 1939 and in 1940. The advance of carloadings in the fall of 1939 initiated a program of car repair and equipment purchases that brought the proportion of bad-order freight cars down to 8.1 percent on October 1, 1940, and resulted in the installation by Class I railways of 65,545 new freight cars and 126 new steam locomotives during 1940. Orders for new rail-

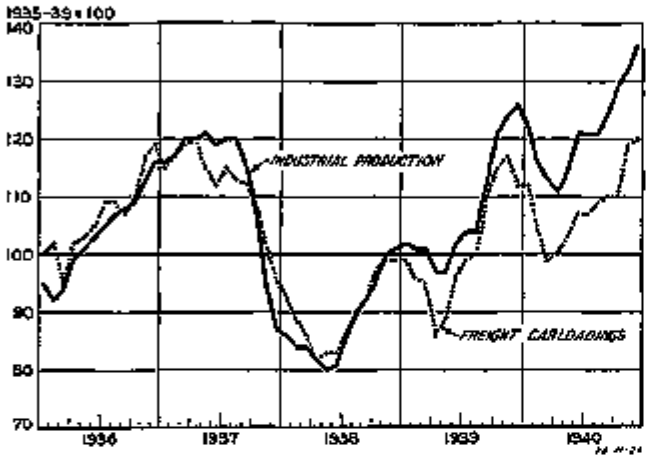

Figure 19.—Indexes of Industrial Production and Freight Carloadings, Adjusted for Seasonal Variations, 1936–40 (Board of Governors of the Federal Reserve System).

road equipment of all types last year approximated 233.4 million dollars, as estimated by Railway Age, compared with 188.8 million dollars in 1939, and at the end of 1940 Class I railways reported 115 steam locomotives and 35,702 freight cars on order. Retirements during 1940, however, were about equal to new installations, and will probably continue at a high rate by reason of the age and obsolescence of much of the existing equipment. In order to add appreciably to the inventory of freight equipment, should this be required to meet the transportation needs of the defense-stimulated industrial expansion now under way, it would be necessary for the railroads to increase their purchases substantially above the 1940 level.

Transportation Act of 1940.

Federal regulation of transportation was expanded and centralized by the Transportation Act of 1940. The Interstate Commerce Commission now has extensive powers for regulating railroads, motor carriers, and water carriers in domestic transportation, while air carriers are subject to a certain degree of regulation by the Civil Aeronautics Authority.

The outstanding provisions of the 1940 Act are meant to (1) extend and enlarge existing regulatory powers over common and contract water carriers that are most keenly competitive with other transportation agencies; (2) establish a national transportation policy for a fair and impartial regulation of all modes of transportation subject to the Act "so administered as to recognize and preserve the inherent advantages of each"; (3) provide for a more flexible policy regarding consolidation of carriers and added protection of employees that may be adversely affected by such consolidations; and (4) authorize the establishment of a temporary board that will study the transportation problem and may make recommendations for further legislation.

Motor and Air Transportation

Motor-truck carriers continued to expand their operations in 1940 as the general rise in business activity made increasing demands upon this rapidly growing type of transport. Class I intercity carriers reported an increase of 17 percent in tonnage of revenue freight transported in the first 6 months of 1940 over the corresponding months of 1939. This was considerably larger than the 11 percent increase in railroad carloadings for the comparable periods. Half-year operating revenues for these intercity carriers were 13 percent higher in 1940 than in 1939, while local carriers reported a gain of less than 6 percent.

Class I motor carriers of passengers report a 13 percent increase in the number of passengers carried during the first 10 months of 1940 over the corresponding period of 1939. Passenger revenue, however, was only 1 percent above 1939—a reflection of the lower rates induced by the more intense competition of the railroads through the reduction of fares in 1940.

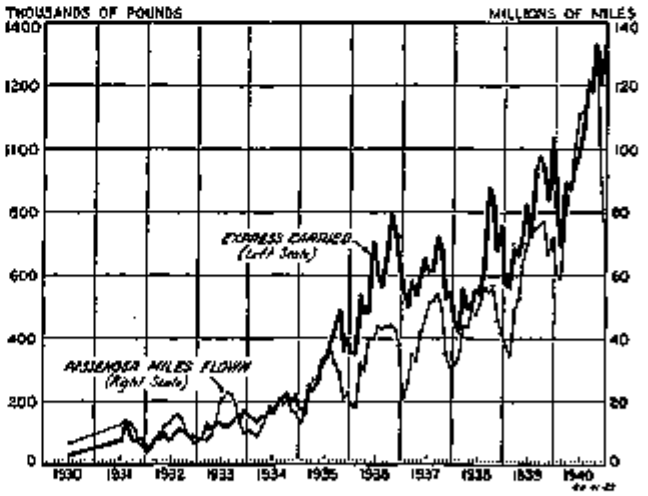

Figure 20.—Passenger Miles Flown and Express Carried by Scheduled Airlines in the Continental United States, 1938–40 (Civil Aeronautics Authority).

Air transportation evidenced even more striking gains in 1940 than motor transport, as both passenger and express traffic attained record heights. (See fig. 20.) Express carried was 31 percent above the 1939 total and reached a new record volume of 1.2 million pounds in November, while the number of passengers

carried increased more than 58 percent during the year. Passenger miles flown were about 53 percent above 1939.

Shipping

The expansion in American imports and the diversion of British, other belligerent, and neutral vessels to wartime supply and naval auxiliary uses brought a marked improvement in the revenues and operations of the American shipping industry during 1940. The gain in operations occurred in the face of a substantial rise in ocean freight rates and the barring of American vessels from a large section of the world under the Neutrality Act of November 1939.

Table 16.—Employment of American Steam and Motor Merchant Vessels of Over 1,000 Gross Tons, June 30, 1939, and September 30, 1940 [1]

(Thousands of gross tons)

Employment	June 30, 1939	Sept. 30, 1940	Change
Laid-up	1,735	1,111	−624
Coastwise	4,298	4,025	−273
Nearby-foreign	541	770	+229
Overseas foreign:			
Europe and Mediterranean	704	69	−635
Africa	82	225	+143
Orient and Far East	154	499	+345
Australasia and India	124	248	+124
South America	319	435	+116
Around world, etc.	178	159	−19
Total overseas	1,561	1,635	+74
Total	8,135	[2] 7,553	−582

[1] Excludes lake and river tonnage.
[2] Includes 12,000 tons in Government service.

Source: U. S. Maritime Commission.

The withdrawal of American shipping from belligerent areas and increased employment elsewhere are shown in table 16, which compares the allocation of American vessels to the principal trade routes on September 30, 1940, with that at the end of June 1939, prior to the war. The effect of the Neutrality Act is shown in the heavy reduction of tonnage in service to Europe and the Mediterranean. However, American tonnage on African and Far Eastern routes approximately tripled, and that to South America increased by one-third. The result was a slight increase in American shipping on all oversea routes over the pre-war total.

In addition to the overseas change, tonnage on nearby foreign routes also advanced, reflecting the shift of dry-cargo vessels into this service from coastwise shipping. The latter was moderately reduced, but tankers, which account for somewhat more than half of coastwise tonnage, were little affected. The above shifts yielded a net increase of 30,000 gross tons in employment of American seagoing vessels for all purposes, with another 12,000 tons transferred to Government service.

American shipping during 1940 assumed a larger share in the United States carrying trade. Clearances of American vessels from United States ports averaged 33 percent of total net register tonnage cleared in 1940, as against 26 percent in 1939.

The extraordinary wartime transportation requirements of the British Empire, in conjunction with heavy losses and the enforced disappearance of German and Italian shipping from the high seas, have curtailed effective world shipping capacity. This, plus increased operating costs, has produced a substantial advance in ocean freight rates since the outbreak of war, as illustrated for selected commodities in American export and import trade in table 17.

One other important development in American shipping during 1940 was the decline in tonnage brought about by the transfer to foreign register and the sale of American vessels. The Maritime Commission approved the sale or transfer of 1,152,000 gross tons between September 1939 and October 1940. While the major part of current merchant-ship construction in the United States is for the American Merchant Marine, the tonnage in American register may be further affected through disposal of older vessels to the British.

Table 17.—Ocean Freight Rates in United States Foreign Trade

Export shipments		Commodity	Basis	Rates (dollars)		Percent increase
Destination	Origin			August 1939	December 1940	
Buenos Aires (Argentina)	Pacific ports	Canned goods	2,000 lb. / 40 cu. ft.	18.00	20.00	11.1
Rio de Janeiro (Brazil)	Atlantic ports	Automobiles (boxed)	2,240 lb. / 40 cu. ft.	9.00	12.00	33.3
Valparaiso (Chile)	do	Iron and steel (bars)	2,240 lb.	7.00	11.20	60.0
Kobe (Japan)	Gulf ports	Cotton	100 lb.	.60	.90	50.0
Do.	Pacific ports	Lumber (squares)	1,000 ft.	12.00	18.00	50.0
Shanghai (China)	Atlantic ports	Tobacco	2,000 lb.	17.00	23.00	35.5
Import shipments						
Origin	Destination					
Santos (Brazil)	Atlantic ports	Coffee	Bags (60 kilograms)	.60	.78	25.0
Porto de la Cruz (Venezuela)	do	Petroleum (crude)	Barrel	.13	[1] .43	230.8
Singapore (Straits Settlements)	do	Tin	20 cwt.	25.00	36.00	44.0
Soerabaya (Netherlands East Indies)	do	Rubber	cu. m.	10.50	15.00	42.8
Hong Kong (China)	Pacific ports	Tung oil	2,000 lb. / 40 cu. ft.	10.00	14.00	40.0
Kobe (Japan)	Atlantic ports	Silk	100 lb.	13.00	18.00	38.4
				4.00	6.00	50.0

[1] August 1940, 20 cents per barrel.

Communications

On the basis of reports filed by large carriers with the Federal Communications Commission, the estimated number of telephones in service in the United States at the end of 1940 will approach 20 million. This increase of more than a million over the number in use last year continues the steady advance that has characterized the industry since 1933. Operating revenues of 94 major carriers for the first 11 months of 1940 amounted to 1,182 million dollars, compared with the 1939 figure of 1,118 million dollars.

The telegraph industry, although continuing to operate at an over-all deficit, also achieved a considerable improvement in its position during the year. Operating revenues of the three telegraph carriers reporting to the Federal Communications Commission amounted to $109,395,406 for the first 11 months of 1940, compared with $106,015,495 for the corresponding period of 1939. This increase of 3.2 percent in operating revenues resulted in an 8.4 percent increase in operating income and reduced the 11-month deficit from almost 3 million dollars in 1939 to 59 thousand dollars in 1940.

Year	Operating revenues	Operating income	Net income
	Thousands of dollars		
1936	122,116	14,921	5,840
1937	123,533	8,309	[1] 187
1938	112,359	2,915	[1] 5,675
1939	116,847	5,847	[1] 6,709
1939 [2]	106,015	4,980	[1] 2,944
1940 [2]	109,395	5,400	[1] 59

[1] Deficit.
[2] 11 months.

Source: Federal Communications Commission.

Operating results were still affected by duplications of facilities and the increasing competition of other forms of communication. As a remedy, the Federal Communications Commission again recommended merger of the domestic telegraph companies and, in addition, urged consolidation of international communication carriers domiciled in the United States, in the interests of defense and other national needs.

Employment and Unemployment

The total number of persons employed in the United States in the final quarter of 1940 was larger than at any other time since 1929. Average employment for the year is estimated at about 46 million persons, which was about 4 percent under the 1929 average. Employment in nonagricultural establishments began to rise in March, and gains were accentuated after the midyear as industrial production advanced to new highs under the stimulus afforded by the defense program. By the end of the year the number at work in nonagricultural pursuits was more than 37.1 millions, an increase of about 1½ million from the previous year-end. This figure does not include the addition after June 1940 of more than 400,000 men to the military and naval personnel of the United States. Also excluded are persons employed on WPA or NYA projects, and enrollees in CCC camps. Farm employment followed its usual seasonal pattern in 1940, while continuing the downward trend shown during the recent years—an average annual decline of about 150,000. This secular movement has lowered farm employment approximately 8 percent below the 1929 average.

All branches of industry and trade participated in the expansion in employment during 1940. However, since the defense program affects manufacturing more than any other industrial segment, it is not surprising that during the last 6 months of 1940 the gain made in manufacturing was about equal to that made in all the other nonagricultural industries combined. In manufacturing establishments, employment in December 1940 totaled a million more than the 9.5 million persons employed in June.

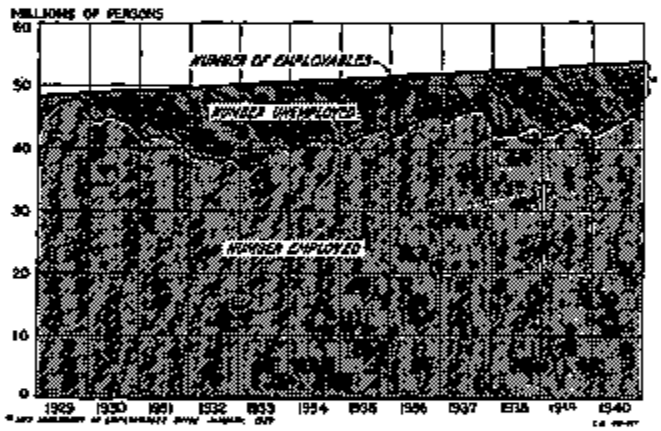

Figure 21.—Number of Persons Employed and Unemployed in the United States, 1929–40.

Note.—Figures are estimates originally made for the Committee on Economic Security by Robert R. Nathan and kept up to date by him.

The rising trend in employment shown during the last quarter of 1940 is expected to continue throughout 1941 as the tempo of the defense program is increased. Certain skills were already in a tight supply position by the end of 1940. Since the success of the defense program depends to a considerable extent on the availability of the necessary skilled labor, a beginning was made through the cooperation of Government, industry, and labor, to establish training programs in special fields where labor shortages are likely to occur. Meanwhile, many persons undergoing such training remained at work on Government work projects.

Widest Gains Shown in Durable-Goods Industries.

The monthly average employment in manufacturing establishments increased by more than 580,000 persons in 1940—a gain of 6.3 percent over 1939, though still below the 1937 and 1929 averages. Since the indus-

tries manufacturing durable goods were most directly affected by the defense activities, they showed the largest gains in employment. The Bureau of Labor Statistics index of factory employment for the durable-goods component advanced from an annual average of 90.2 (1923–25=100) in 1939 to 104.2 in 1940, an increase of 15.5 percent, while average employment in nondurable-goods industries rose only from 109.2 in 1939 to 110.6 in 1940. Changes during the course of the year, however, were much larger. Thus, most of the gain in the durable-goods employment was made in the final 6 months, the index of employment increasing from a low of 98.4 in July to 117.5 by the end of the year, the highest recorded figure. By the year-end the nondurable-goods index of employment had increased from a low of 105.6 in May to 114.9—somewhat above the peak reached in 1929, though still below the high point in 1937.

The defense program stimulated employment to a greater extent in those durable-goods industries directly concerned with producing war materials. In a number of war-materials industries, employment reached new highs by the year-end. The aircraft companies, for example, employed about 131,200 wage earners in December 1940, compared with less than 25,000 on the average during 1937. Shipbuilding yards engaged over one-third as many more workers as a year earlier. In other major industries stimulated by war orders, as shown in table 18, substantial increases were reported.

Table 18.—Employment in Selected Industries

Industry	Estimated wage earners, December 1940	Increase from December 1939 to December 1940	Increase December 1940 over 1937 average
Aircraft	131,200	72,400	107,200
Shipbuilding	120,400	44,600	58,100
Machine tools	78,100	23,700	30,900
Engines	87,100	28,900	84,200
Aluminum manufactures	31,900	5,600	8,200
Foundries	468,600	67,700	25,200
Electrical machinery	279,300	51,100	22,100
Steel	538,700	55,600	24,800
Chemicals	85,400	7,000	5,500
Brass, bronze, and copper products	109,400	19,800	25,300

Source: Bureau of Labor Statistics, U. S. Department of Labor.

Considerable diversity marked the gains reported in the other major industrial fields. The largest percentage increase occurred in the construction and in the mining fields. The construction industry experienced its best year of the decade, construction contractors employing 84,000 more workers on the average than in 1939. Employment in extractive industries had been lower in 1939 than at any time since 1933. During 1940 these industries increased their labor force by about 7 percent, but this still left a considerable margin from the 1937 average of 949,000. Elsewhere the percentage gains reported for 1940 were smaller. The increase of 120,000 in trade constituted a gain of less than 2 percent; 89,000 additional employees in transportation and public utilities increased the total in those industries only 3 percent; and the 53,000 persons added to financial, service, and miscellaneous establishments raised this total little more than 1 percent.

Civil employees of Federal, State, and local governments increased by 88,000 in 1940 over 1939, or a little more than 2 percent. Many of the additional civil employees were force-account workers on construction projects vital to defense. Nevertheless, considerable expansion took place in the military and naval branches, with an average of 200,000 being added in 1940. These included additions to the regular Army, Navy, Marine Corps, and Coast Guard, as well as members of the National Guard inducted into the Federal Service by act of Congress.

The average number employed on work-relief projects of WPA in 1940 was 460,000 less than in 1939, the program furnishing employment in December for 1,809,000 persons. The NYA and CCC programs changed only slightly from 1939.

Unemployment Decreasing.

As a result of the general business expansion and the increase in Army and Navy personnel, unemployment at the end of 1940 was about 1,500,000 less than at the outset of the year. Estimates of the total unemployed varied widely, chiefly because of differences in the calculation of the available labor force—a question whose settlement awaited final tabulation of the 1940 census. There was no doubt, however, that a considerable labor supply was available for the further industrial expansion expected in 1941 and 1942.

Despite the substantial employment gain in 1940, most estimates showed a larger number of jobless than at the period of peak industrial activity in 1937, a time when the Federal Reserve Board production index was 13 percent below the December 1940 figure. Moreover, the average hours worked per week rose to 41 in 1937, whereas in 1940 they advanced only from 37 to 39. Three factors are important in accounting for the unemployment increase between 1937 and 1940. First, each year the labor supply had increased by a figure ranging from 400,000 to 600,000 persons (exact figures are not known, as their determination must await analysis of the final tabulation of the 1940 Census); secondly, employment in agriculture had continued its secular decline, reflecting both a decrease in demand and increased mechanization of the industry; and thirdly, increased productivity per worker in many industries had diminished labor requirements per unit of output. From 1939 to 1940 alone, it is estimated that production per man-hour increased approximately 4 percent in both the durable- and nondurable-goods components of the Federal Reserve index. This increase, of course, was only partly the result of technological change. Further utilization of existing plant

increases efficiency in the use of labor. Moreover, the defense program emphasizes a type of production where labor uses much capital, and hence labor productivity is greater.

Rise in Pay Rolls.

Partly as a result of lengthened hours of work, increases in wage rates, and the use of a larger number of skilled workers, especially in the armament industries, the index of factory pay rolls advanced more rapidly in the latter half of 1940 than the employment index. Average hourly earnings in durable-goods industries increased from 71 cents during the last 6 months of 1939 to 74 cents in 1940, while in nondurable-goods industries they advanced from an average of 59 cents to 61 cents. Only part of this increase represented higher wage rates, however, the remainder resulting from the employment of a larger proportion of the total labor force in skilled work receiving higher pay.

Time lost as a result of industrial disputes was cut to one-third of the total for 1939. Man-days idle for the year averaged under 500,000 monthly as compared with 1,484,352 in 1939 and 2,368,738 in 1937. No major industrial disputes, such as those in the automobile and bituminous-coal industries in 1939, occurred during the year.

Commodity Price Movements

The broad contours of commodity price movements in 1940 were shaped mainly by changes in industrial production and were much less affected by speculative reactions to war developments than was the case in the autumn of 1939. Hence the price rise that occurred in the latter part of 1940 was moderate on the whole, despite the advance in industrial production to record volumes. Except in isolated instances, the feverish price movements initiated by forward buying in the preceding September, at the outbreak of the war, were not duplicated. At the end of the year spot and wholesale commodity prices were generally no higher than at the end of 1939.

The relatively moderate price development was all the more noteworthy in that it accompanied a flow of new orders to manufacturers in a volume exceeding the peak of the 1939 inventory boom. Existence of considerable unused capacity made possible an orderly advance in most lines of production, but that condition likewise prevailed a year earlier. The difference in the two situations was a diminution of the speculative motive, attributable to a number of circumstances. There was, in the first place, a realization that the price rises of the previous period were unwarranted in view of unutilized resources, and that the history of prices in the first World War would not be repeated automatically. In the second place, the Administration's determination to prevent price maladjustments no doubt acted as a damper on an upward movement. For each case where the Price Stabilization Division of the Defense Commission threatened direct intervention to prevent a price increase, there were numerous other cases where no action had to be taken. Even if not used, the power to exercise priorities proved a restraining influence. Large backlogs were allowed to accumulate in durable-goods industries without resort to price increases for cutting off some of the flow of new business.

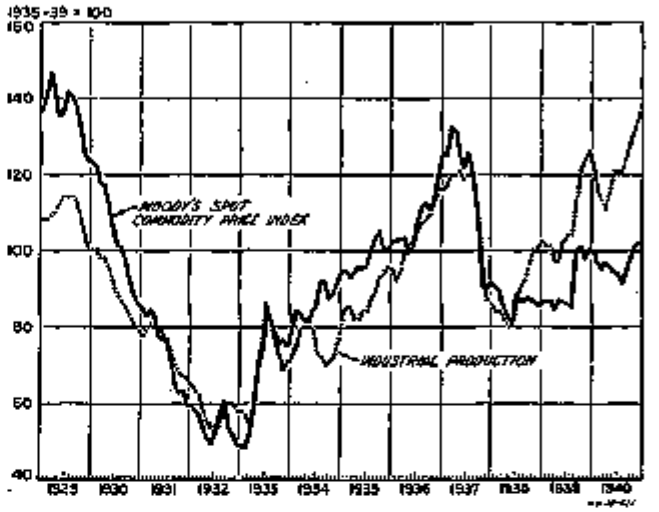

Figure 22.—Indexes of Industrial Production and Commodity Prices, 1929–40 (Board of Governors of the Federal Reserve System and Moody's Investors Service).

NOTE.—The Federal Reserve index of industrial production is adjusted for seasonal variations. The spot price index, covering 15 important commodities, published by Moody's has been recomputed, with 1936-38 as base.

While events of the last quarter of 1940 mitigated the immediate fears of sharply rising prices, it was generally realized that the price problem remained a source of danger that might increase the costs of rearmament, induce inventory buying in industries already faced with large backlogs of unfilled orders, and multiply the immediate problems as well as those of post-war adjustment. So long as industrial capacity was inadequate to meet the peak demands induced by the defense program, the danger of rising prices continued to exist. The quickening pace of defense demand made most urgent the problems of avoiding bottlenecks by creating new facilities (including necessary skilled labor) and of using our existing facilities more effectively. Meanwhile, until new facilities could be brought into activity, priority systems were to supplant price advances as the means of equilibrating demand with supply in the affected areas. The possibility of credit inflation seemed unlikely to become a problem within the year, though the situation was being watched closely and steps to meet it were planned if it threatened to become a factor in the price outlook.

Prices and Changes in Industrial Production.

That expanding industrial activity need not in itself lead to large price increases is demonstrated by the experience in 1938 as well as this year. However, as figure 22 shows, both in 1937 and 1939 the substantial

advance in production was accompanied by a considerable price rise. But in each of these instances a peculiar combination of factors was instrumental in creating such a result. Thus, in 1937 not only had two previous years of drought pushed agricultural prices upward, but a sudden spurt of consumer demand induced by payment of the soldiers' bonus and the expansion of the British rearmament program took place simultaneously with substantial wage advances in important durable-goods industries. The net result was a wave of speculative inventory buying which served to increase prices still further.

to recede though production continued to advance to the end of 1939.

The movement of prices in 1940 was smaller than the movement of industrial production—the Bureau of Labor Statistics' wholesale price index falling from 79.4 in January to 77.4 in August, then rising to 80.0 in December. This general movement, however, cloaked the divergent course taken by the prices of certain commodities particularly sensitive to supply-and-demand conditions and most directly affected by military developments abroad.

Thus, the first reaction to the spread of the war to

Table 19.—Wholesale and Other Price Indexes for Selected Periods

Item	October 1936	April 1937	August 1939	September 1939	January 1940	August 1940	December 1940	Percent change: August 1939–January 1940	Percent change: January 1940–August 1940	Percent change: August 1940–December 1940
Wholesale Price Indexes										
(U. S. Department of Labor, 1926=100)										
Combined index, all commodities [1]	81.5	83.0	75.0	79.1	79.4	77.4	80.0	+5.9	−2.5	+3.4
Economic classes:										
Raw materials	83.1	88.7	66.5	72.6	73.8	69.8	73.6	+11.0	−5.4	+5.4
Semimanufactured articles	76.2	80.6	74.5	81.6	81.7	77.0	80.7	+9.7	−5.8	+4.8
Finished products	82.0	87.4	79.1	81.9	81.7	81.0	82.8	+3.3	−.9	+2.2
Farm products	84.0	92.2	61.0	68.7	69.1	66.6	69.7	+13.3	−5.1	+5.2
Grains	102.1	119.2	51.5	66.1	73.5	59.3	67.0	+42.7	−19.8	+13.0
Livestock and poultry	81.2	93.6	66.0	70.3	67.2	71.5	72.7	+1.8	+6.4	+1.7
All commodities other than farm products	80.9	80.9	77.9	81.3	81.5	79.9	82.1	+4.6	−2.0	+2.8
Foods	82.6	86.6	67.2	76.1	77.7	76.1	78.5	+15.7	−2.2	+4.9
Dairy products	87.4	79.6	67.9	74.5	81.9	74.3	84.2	+20.6	−9.3	+13.3
Meats	84.4	94.9	73.7	81.0	69.9	76.1	77.0	−5.2	+8.9	+1.2
All commodities other than farm products and food	80.1	96.5	80.1	82.1	83.9	82.0	84.1	+4.7	−2.3	+2.6
Building materials	87.3	90.7	89.5	90.9	93.4	93.3	99.3	+4.2	−.1	+6.4
Chemicals and drugs	80.1	85.0	74.2	76.6	77.7	76.7	77.7	+4.7	−1.3	+1.3
Fuel and lighting materials	76.9	76.8	72.8	72.8	72.7	71.1	71.7	+.1	−2.2	+.8
Hides and leather products	95.6	106.3	92.7	96.5	103.5	96.9	102.3	+12.8	−6.5	+5.6
Hides and skins	97.2	121.4	77.2	97.4	102.5	77.1	99.3	+32.9	−24.9	+28.8
Textile products	71.8	79.5	67.8	71.7	77.9	72.2	74.8	+14.9	−7.2	+3.5
Cotton goods	82.0	96.1	65.5	70.4	75.4	68.6	74.9	+15.1	−9.0	+9.2
Rayon	32.4	33.6	28.5	29.0	28.5	28.5	28.5	+3.5	0	0
Silk	31.1	34.4	44.3	49.7	61.8	43.0	42.5	+39.5	−30.4	−1.2
Woolens and worsteds	80.5	93.5	75.5	84.0	90.4	83.7	89.0	+19.7	−7.4	+6.3
Metals and metal products	96.9	96.5	93.2	94.8	95.9	94.9	97.6	+2.8	−.9	+2.8
Iron and steel	95.8	99.6	95.1	96.5	96.3	94.8	95.4	+1.3	−1.5	+.6
Nonferrous metals	72.7	97.0	74.6	84.7	82.6	79.1	83.4	+10.7	−4.2	+5.4
House-furnishing goods	82.0	89.0	85.5	86.8	87.9	88.5	88.9	+2.7	+.7	+.5
Miscellaneous	72.5	81.1	73.3	78.6	77.7	76.7	77.3	+6.0	−1.3	+.8
Other Indexes										
Cost of living (National Industrial Conference Board, 1923=100)	85.2	87.3	84.0	85.4	84.6	85.1	85.8	+.7	+.6	+.8
Prices received by farmers (U. S. Department of Agriculture, August 1909-July 1914=100)	121	130	98	99	99	98	101	+12.5	−3.0	+3.2
Retail foods (U. S. Department of Labor, 1935-39=100)	103.0	105.1	99.5	98.4	94.8	95.3	97.2	+1.4	+1.6	+.9
Retail prices of department-store articles (Fairchild index, Dec. 31, 1930=100)	90.0	95.2	89.5	90.2	92.3	92.9	93.9	+3.1	+.7	+1.1

[1] Based on 784 series in 1936 and 1937, 813 in 1939, 863 in January and August 1940, and 887 in December 1940.

Again in the fall of 1939 the outbreak of war occasioned a radical change in expectations. As conditions similar to those that existed in the last war were anticipated, speculative inventory buying immediately began. In some instances, spot prices of commodities were bid up 30 to 40 percent. The Bureau of Labor Statistics' index of sensitive commodity prices rose from 100.4 (August 1939=100) on August 31 to 124.9 at the end of September, and the wholesale price index jumped from 75.0 (1926=100) in August to 79.4 in October. By the end of 1939, however, the business community had become aware of the limitations implicit in the recovery and the dangers inherent in an upward price movement. Indeed, soon after September prices started

Scandinavia was an advance in the price of many import staples—particularly rubber, tin, burlap, cocoa, and sugar—reflecting supply considerations associated with the events of the war and its possible influence on shipping facilities. Wood pulp, a major import item from Scandinavia, also advanced markedly in price. Wholesale prices, however, generally were unaffected. Again in May with the start of the large-scale offensive on the Western Front, sensitive commodity prices moved up. After May 10 when Germany invaded the Netherlands and Belgium, practically all sensitive commodity prices dropped precipitously. The Bureau of Labor Statistics' index of 28 sensitive commodity prices declined from 118.1 to 113.9 in the week ended May

17. Pacing this downward movement of the index was the component representing agricultural prices, which receded from 123.0 to 116.1 in the same week, in anticipation of the prospective loss of foreign mar-

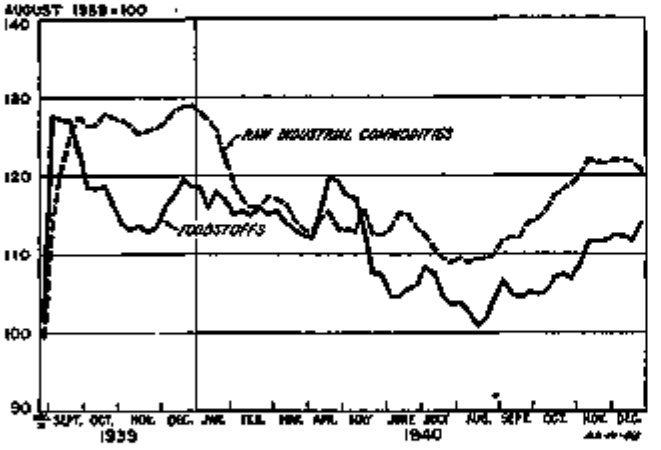

Figure 23.—Indexes of Daily Spot Market Prices of Raw Industrial Commodities and Foodstuffs, August 31, 1939–December 26, 1940 (U. S. Department of Labor).

NOTE.—Daily figures, August 1939=100. Data shown are for Thursday each week unless a holiday falls on this day, in which case Wednesday prices are shown. The index of raw industrial commodity prices is based upon 16 quotations (15 items): Flaxseed, shellac, rubber, hides, resin, print cloth, silk, wool, burlap, steel scrap (Chicago and Philadelphia), tin, copper, lead, zinc, and cotton. The index of foodstuff prices is based upon 12 items: Wheat, barley, corn, butter, tallow, hogs, steers, lard, sugar, coffee, cocoa beans, and cottonseed oil.

kets. Spot cotton prices fell $2.50 per bale in the week ended May 17. Wheat dropped 20 cents per bushel, and the exchanges subsequently established minimum prices for several weeks.

These sensitive prices held firm for a few weeks at the midyear, then declined sharply again as concern was felt in business centers over war prospects, the sensitive commodity index reaching a low of 105.5 in August. In all, the index dropped 15 percent in the first 7 months of the year. Late in August prices firmed and turned upward as it became apparent that a quick knockout of Britain was unlikely and as industrial production expanded rapidly in anticipation of the defense program.

From the low of 105.5 on August 16, the spot commodity index advanced 12 points to 117.5 on November 15, the major components moving up proportionately. From November 15 to the end of the year, spot prices held relatively stable. However, during this period some divergence in price movements again appeared; while raw industrial commodities tended to recede in the final 6 weeks of 1940, agricultural commodities and foodstuffs advanced more than 3 percent. Import prices reached their highest level early in December and tended to decline thereafter. At the end of the year the spot commodity index remained 4½ percent under the average prevailing at the beginning of the year. The B. L. S. wholesale price index which now includes 887 commodities, was fractionally higher in December than in January, but relatively few components equaled their highs of the previous fall.

Changes in Price Relationships.

During 1940 the change in price relationships between broad commodity groups was more marked than in 1938 and early 1939, but it still was not of the same magnitude as that which occurred in 1936–37 (see figs. 24 and 25). While farm prices and raw industrial commodities were subject to the widest variation in the course of the year, there was no shift in their general relationship as in 1936–37. However, farm prices improved their position relative to all other commodities in 1940, though remaining substantially lower than in 1937 when 2 antecedent years of drought sharply lifted them above those of other commodities. (See fig. 24.) The decline in farm-product prices from March 1937 to August 1939 amounted to 35 percent, but when all prices rebounded in September a year ago, farm products paced the advance. From January to August 1940 agricultural commodity prices as usual showed greater sensitivity to the general recession in prices than other components in the wholesale commodity index, and in the last 4 months of 1940 they again led the upward swing. Though the loss of export markets was a depressing influence, the expansion of consumer incomes and the effect of the Government loan program offset it and kept farm prices buoyant. Prices of meat animals, dairy products, chickens and eggs, and fruits led the advance. Though grains and cotton also recovered in the final 4 months, they closed the year somewhat lower than at the end of 1939. Not only was farm money income increased by higher prices, but real income advanced even more as prices paid by farmers for commodities used in consumption and production receded from 123 (1910–14=100) in June to 122 in December.

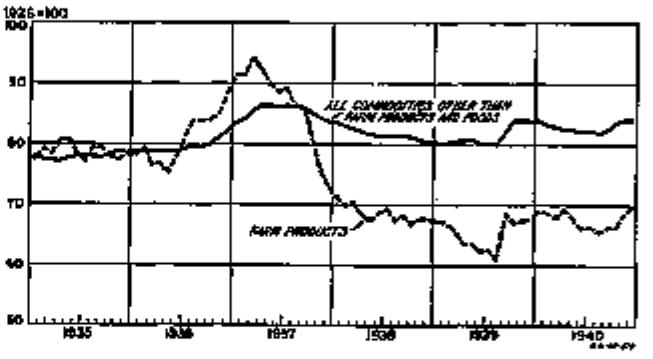

Figure 24.—Indexes of Wholesale Prices of Farm Products and All Commodities Other Than Farm Products and Foods, 1935–40 (U. S. Department of Labor).

Wholesale prices of commodities at the various stages of production showed less divergence of movement than is customary in periods of striking economic change. In the past it has been usual for general shifts to occur in the price relationships of raw materials, semimanufactured, and finished commodities. Raw-material

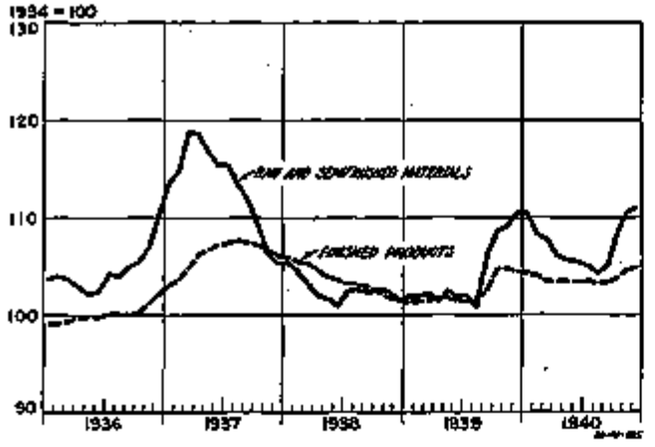

Figure 25.—Indexes of Wholesale Prices of Industrial Commodities, 1936–40.

Note.—Computed by the Board of Governors of the Federal Reserve System from U. S. Bureau of Labor Statistics' data; all foods and feeds, both raw and processed, are omitted.

prices usually have had the widest swings, moving above prices of manufactured goods in the prosperity peaks and falling below them in recession and depression. However, this relationship has not held in recent years. From 1937 to September 1939 raw materials declined, not rising appreciably during the period of improving business activity in the second part of 1938, and advancing no more than other prices in September 1939. During 1940 raw-material prices roughly moved parallel to those of semimanufactured products. Prices of the two groups rose about 9 percent in September 1939; then declined about 5 percent to August 1940, only to regain their December 1939 levels by the end of the year. On the other hand, finished-goods prices as a group showed little change, closing the year at approximately the September 1939 level.

Table 20.—Prices of Selected Foodstuffs and Industrial Materials

Item	1939		1940			Percent change, Aug. 16 to Dec. 31, 1940
	Aug. 31	Dec. 20	May 10	Aug. 16	Dec. 31	
FOODSTUFFS						
Wheat, No. 2, hard, Kansas City [1] cents per bu.	67	104	105	93	85	+22.1
Corn, No. 3, yellow, Chicago do	69¼	58	70¾	55¾	54¼	−3.0
Rye, No. 2, c. i. f., New York do	55¾	99½	85½	56	64¼	+15.1
Sugar, 96° delivered, duty-free cents per lb.	2.92	2.93	2.90	2.62	2.90	+10.7
Coffee, Santos, No. 4, New York cents per lb.	7¼	7¼	7¼	6½	7½	+13.2
Cocoa, Accra, New York do	4.47	6.09	5.30	4.22	5.30	+25.6
Hogs, Chicago [2] dol. per cwt.	[3]5.52	6.32	5.60	6.00	6.50	+8.3
Lard, cash, Chicago cents per lb.	5.75	6.32	6.42	4.67	4.47	−2.2
Beef, Chicago [2] dol. per cwt.	[3]8.92	9.85	9.62	10.83	11.71	+8.1
INDUSTRIAL MATERIALS						
Cotton, 10-market average cents per lb.	8.65	10.68	9.92	9.74	9.80	+1.2
Silk, New York dol. per lb.	2.65	4.60	2.66	2.47	2.52	+2.0
Wool, territory, fine, Boston do	.72	1.04	.88	.87	1.08	+24.1
Hides, heavy native steers, Chicago cents per lb.	11	15	12½	10½	13	+26.8
Rubber, plantation, New York cents per lb.	16¾	20½	23	19¾	20¾	+4.4
Copper, electrolytic, New York cents per lb.	10½	13½	11½	10¾	12	+11.6
Lead, New York do	5.05	5.68	5.00	4.75	5.50	+15.8
Tin, Straits, New York do	49½	49¾	43½	50¾	50⅛	−1.3
Zinc, New York do	5.14	6.39	6.14	6.89	7.66	+11.0
Steel, scrap [4] dol. per gross ton	16.92	17.67	16.75	18.63	21.83	+17.2

[1] U. S. Department of Agriculture. Data represent averages of daily prices for week ended on nearest Saturday except when otherwise noted.
[2] Average price for week ended August 26.
[3] Iron Age. Based on No. 1 heavy melting steel, quotations at Pittsburgh, Philadelphia, and Chicago. Figure represents average for week ended on nearest Tuesday.

Source: Journal of Commerce unless otherwise indicated.

During the year, retail prices of finished goods lagged behind changes in their prices at wholesale. Thus, the finished-goods wholesale price index rose from 80.5 (1926=100) at mid-year to 82.8 in December, while wholesale and spot prices of farm products and foods also registered a net advance. But over the same period, cost-of-living indexes showed no change, though retail foodstuff prices declined very slightly.

Some Developments Among Individual Prices.

While special conditions made for sharp price increases in a limited number of specific commodities as the defense program developed in the fall months, the range of price changes for major commodity groups from the 1940 lows to the end of the year was not marked. Textile products and metals and metal products, for example, rose 3 to 4 percent in the B. L. S. wholesale price index, roughly the average for all commodities. Building materials rose, on the average, about 7 percent under the impact of the heaviest construction in the decade. With the exception of hides and leather products, a particularly sensitive group, the commodities to show the largest gains from both the 1940 lows and the pre-war levels of August 1939 were foods and farm products. The smallest rise was indicated for house furnishings, fuel, and lighting materials.

Of course, these moderate increases all relate to quoted prices. It is probable that more substantial increases in mill nets were secured during a period of such active demand as the last 4 months of 1940. Adequate data on actual realized prices, however, are not available.

Iron and steel.—Of particular significance for the defense program were the price developments in metals and metal products. After declining slightly from the 1937 peak to August 1939, metal prices almost regained their 1937 peak in the following 3 months. After a slight decline in the fore part of 1940, the metals group moved above their 1937 peak. Steel scrap declined from $16.25 per ton in January at Chicago to $15.25 on April 15. The demand for steel products had fallen off seriously by that time, resulting in price reductions for a few weeks in a variety of finished steel products. Following the improvement in the industrial outlook, steel-ingot production rose rapidly, and with it the price of steel scrap advanced in June to $18.75 per ton at Chicago. As steel output was further expanded in the second half of the year, the price of heavy melting scrap rose at all principal markets, reaching $21 by the end of the year at Chicago. Higher prices in other markets in November led to action by the Price Stabilization Division. The Iron Age composite scrap price advanced weekly from $18.17 on August 6 to $21 on November 26; in December the upward

movement in scrap was slowed until the final week of the year, when it advanced to $21.83.

Despite the sharp advance in scrap prices, the iron-and-steel component in the Bureau of Labor Statistics' wholesale index, which is based on posted prices, for December was lower than it had been in January, and 6 percent under the 1938 peak for the decade. Structural steel and many other finished steel prices stayed the same throughout the year—unchanged, in fact, from July 1938. Consequently, the boost in metal prices for the year as a whole is traceable largely to the other metals.

Copper.—Nonferrous metals fluctuated more widely in price in the past year than the other components of the metals index. Rising from 79.1 (1926=100) in August, the index of this group of metals advanced to 83.4 in December, somewhat below the monthly averages in the fall of 1939. For the year as a whole copper prices averaged somewhat higher than in 1939, though the year-end price was lower than the 1939 high. Spot copper prices ranged from 12.3 cents per pound at the first of the year to a low of 10.4 cents in July. The prevailing price at New York for electrolytic copper in the last quarter was 12 cents, as against the 1937 high of 17 cents per pound. A restraining factor in the price situation was the purchase of 100,000 tons of foreign copper by the Metals Reserve Company, which will become available to industrial consumers by March at about the current price, if need can be shown for its use. At the same time stocks of refined copper in the United States were slowly being depleted as domestic production of refined copper held fairly steady at an average of 80,000 net tons for the first 10 months, rising to only 96,000 tons for November and December. Less than 6 weeks' supply was estimated on hand at the close of the year.

Zinc.—The position of zinc proved more stringent than that of metals which had been placed on the official strategic materials list. Prices advanced rapidly in spot markets from the early 1939 level of approximately 5 cents per pound to 6.9 cents at the end of September 1939. Receding 1 cent per pound by the end of January 1940, zinc prices advanced constantly throughout the year to reach 7.6 cents per pound. By December no more than a week's supply was available in the United States. Scrap-zinc prices began to approach the price of the virgin metal. But the fact that prices did not get entirely out of hand is to be attributed to a realization that at the moment higher prices would not bring forth larger supplies, and that the Government would intervene if prices were not held in check. As unfilled orders accumulated, refining capacity was in process of rehabilitation, new retorts were being installed for operation in the late spring, and imports of refined zinc from Canada appeared likely for reexport to Britain. The fact that zinc prices held nominally below the 1937 peak was not significant in the face of a depletion of stocks of slab zinc at refiners from about 67,000 net tons in June to less than 13,000 tons at the end of the year.

Tin.—Prompt action by the Metals Reserve Company in negotiating an agreement with the International Tin Cartel and Bolivian producers eased the position of tin. In August 1939, before the outbreak of the war, tin averaged about 49 cents, from which level prices rose sharply to 60 cents in September. Under pressure of heavy inventory buying, nominal prices for Straits tin in New York touched 75 cents, but fell rapidly to 49 cents in December. With the change in the European and Asiatic political situation in May, prices advanced from the April low of 44.8 to 55 in May and 58 cents in June, which compared with the 1937 high of 63 cents. From this point the price declined to the year-end when it was stabilized roughly at 50 cents per pound under the agreement that provides for increased world production and the sharing with the British of all surpluses at that price. Aside from this factor, the present flow of tin from abroad is at record volume.

Lead.—Large imports tended to lighten the pressure of lead prices. While refined lead production had not increased sufficiently to prevent a decline in stocks at the year's end to less than a month's supply, foreign supplies of the metal were readily available. On the whole, lead prices fluctuated less violently than those of the other major nonferrous metals, though the December price of 5.5 cents per pound equaled the 1939 high.

Building materials.—Building-material prices provided one of the major problems in the defense construction program. The rise in the Bureau of Labor Statistics' building-materials index from 93.3 in August to 99.3 in December was, however, largely the result of a movement in a single item—lumber. While the cantonment program was reaching its peak, the bunching of defense orders caused the lumber price index to leap from 94.8 in July to 118.8 in December. This represented a 28 percent increase over the average for 1927, the peak construction year in the United States—a level higher than in any period of record except for 1919, 1920, and 1923. At the peak in the spring of 1937 the index did not rise above 107. Other building materials, such as paint, brick, and cement, while rising moderately in the late fall months, were no higher than at the first of the year.

Rubber.—As a major industrial raw material for which the United States is entirely dependent upon foreign sources, rubber was subjected to all the shocks emanating from changes in the world political situation. Virtually unchanged from August 1938 to August 1939, rubber prices advanced more than 40 percent to 24 cents a pound in the second week of September 1939. Most of this increase was lost in the subsequent general decline. But the occupation of the Netherlands caused concern over the future flow of crude rubber from the

Netherlands Indies, and spot rubber prices advanced from 19.3 cents on May 1 to 25 cents on May 10, dropping back to 20.8 cents by the end of the month. Though it again rose shortly with the defeat of France, the price settled around the 20-cent mark as it became apparent that the International Rubber Regulation Committee would raise quotas upward to 100 percent. Under the Rubber Reserve Company agreement with the International Committee, export quotas were to be raised whenever required to permit the United States to purchase 180,000 tons on the open market during 1941 at 18 to 20 cents. This tonnage was to supplement the June agreement covering 160,000 tons for 1940 and 87,000 tons under the cotton-rubber exchange with Great Britain. In the final months of 1940 crude imports were exceeding 1929 volumes.

Textile prices.—Textile prices generally receded from January to August, the combined index of wholesale prices declining from 77.9 to 72.3. However, the movement was reversed in the early fall by heavy Army purchases and the beginning of inventory buying. By the end of the year, some of the decline had been erased, the index rising to 74.8 in December. Both woolen and cotton goods shared in this advance, though neither reached the level that had existed at the beginning of the year.

The domestic wool crop in 1940 exceeded that of 1939 by only 3 percent. Though consumption in the first 8 months was lower than in the same period of 1939, heavy Government purchase of cloth after August, requiring almost half of the domestic clip, exercised a strong influence on wool prices. The index of woolen and worsted prices rose from 83.7 in August to 89 at the end of the year. Tight supply conditions in foreign markets that supply imports, contributed to the advance. The entire crop of Australia, New Zealand, and South Africa was placed under the control of the United Kingdom and prices were forced upward. A substantial part of the United States demand was diverted to South American wools, with the result that prices also rose in these markets.

In the cotton-textile industry no question arose concerning the adequacy of raw-material supplies. But new orders in the final quarter of the year were of such magnitude as to tax mill capacity, and the cotton-goods price index rose from a low of 68.6 in August to 74.9 in December—slightly under the level at the beginning of the year.

Rayon prices remained unchanged during the year, though they were fractionally higher than in the preceding 2 years. Silk prices, on the other hand, declined widely, the index falling from 61.8 in January to 42.5 in December. Most of the reduction occurred in the first half of the year. Excessive stocks in Japan, the loss of British and Canadian markets, and growing substitution of rayon in this country, all contributed to the reduction.

Domestic Banking and Finance

Banking and Credit

The war in Europe overshadowed all other influences in shaping the course of domestic financial developments during 1940. Among its effects, either direct or indirect, were to be counted an unprecedented inflow of gold, with consequent changes in bank deposits, reserves, and interest rates; security prices that fluctuated

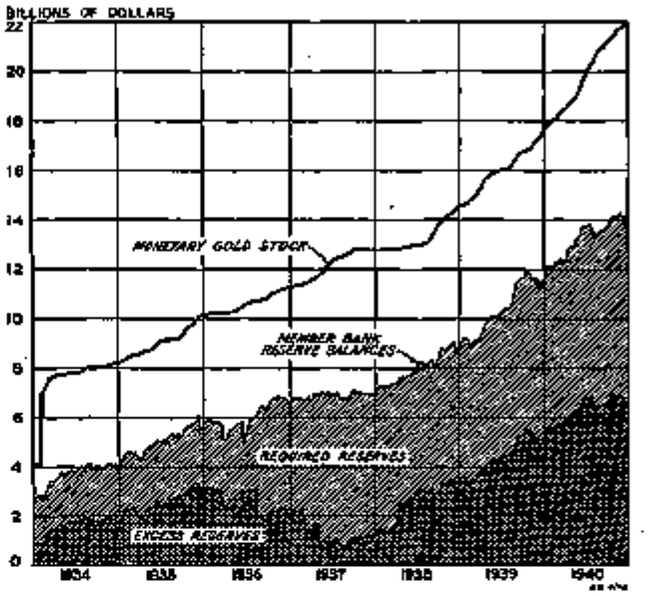

Figure 16.—Monetary Gold Stock and Member Bank Reserves, 1934–40 (Monetary Gold Stock, U. S. Treasury Department; Member Bank Reserves, Board of Governors of the Federal Reserve System).

Note.—Data are for Wednesday of each week.

widely with shifts in military fortunes abroad; and the initiation of the defense program, which increased loans, investments, and flotation of new capital issues.

The persistent inflow of gold was the result both of the need to finance mounting commodity purchases from this country and of a continued movement of flight capital seeking a safe haven. By the end of the year, 4,700 million dollars of gold had arrived from abroad. About 645 million of this was held under earmark, raising total earmarked gold in this country to 1,808 million dollars. The remainder, added to the 207 million dollars output from domestic and Philippine mines, increased the monetary gold stock of the country to approximately 22 billion dollars, compared with 17,643 million at the close of 1939. An addition in two years of almost 7.5 billion dollars to our monetary gold left the United States in possession of all save a small portion of the world stock.

The gold inflow was, of course, the chief reason for the substantial increase in the country's huge pool of bank credit. Through November the volume of member-bank reserves held in the Federal Reserve banks increased steadily to new highs, the maximum for the year being attained on November 27, when total reserve

balances were almost 14.3 billion dollars. In addition to the new gold, however, certain other factors (as shown in table 21) operated to increase the volume of funds at the disposal of the banking system. Of chief importance among these was the net disbursement by the Treasury of approximately 480 million dollars, from cash and deposits held in the Federal Reserve banks. Moreover, the Treasury increased its currency outstanding by some 125 million dollars.

Table 21.—Factors Affecting Total and Excess Reserves of Member Banks, 1940

[Millions of dollars]

Item	Dec. 27, 1939	Dec. 31, 1940	Net change
Factors of increase:			
Monetary gold stock	17,820	21,995	4,175
Treasury cash	2,417	2,212	205
Treasury deposits with Federal Reserve banks	546	[1] 269	277
Treasury currency outstanding	2,963	3,087	124
Total			4,981
Factors of decrease:			
Federal Reserve bank credit outstanding	[1] 2,509	2,274	235
Money in circulation	7,663	8,733	1,070
Nonmember deposits and other Federal Reserve accounts	933	2,016	1,083
Total			2,448
Member-bank reserve balances	11,493	14,026	2,533
Required reserves	5,447	7,411	964
Excess reserves	5,046	6,615	1,569

[1] Adjusted slightly.

Source: Weekly statements of "Condition of the Federal Reserve Banks," Board of Governors of the Federal Reserve System.

One of the largest factors to absorb part of the increased funds available for reserves was the continued rise in the amount of money in circulation, increasing during the year by the unusual amount of 1,070 million dollars. Another important factor was the 725 million dollar increase in the deposits of foreign funds (most of it since June) in the Federal Reserve banks. Finally, part of the increased funds—about 360 million dollars—represented larger deposits by nonmember banks, and as reserves of these banks, were not directly available for member banks.

Excess Reserves.

However, as the addition to reserves greatly exceeded the increase necessitated by the expansion of deposit liabilities, a further gain in excess reserves to 6,615 million dollars at the end of the year was recorded—1,569 million more than at the end of 1939. The increase in deposits, on the other hand, required only 964 million dollars more reserves than a year earlier. Much of this larger requirement came in the last quarter of the year; excess reserves actually attained their peak at the end of October, reaching a maximum of 6,960 million dollars. In addition to larger loans, member-bank purchases of the Treasury's first offering of National Defense Series Notes contributed to the reduction during the final month.

This further gain in excess reserves during 1940 magnified the problem faced by the monetary authorities in attempting to control the volume of credit with the instruments at their disposal. For the past 2 years, the principal medium of credit control has been the purchase and sale of securities by the Federal Reserve open-market committee. With the exception of relatively minor purchases in the spring and autumn of 1937, no net changes had occurred in the volume of Government securities held in the system's portfolio since the autumn of 1938. The volume again remained unchanged in 1939, but important shifts occurred in the components of the portfolio.

In the middle of 1939, the practice of maintaining a constant amount of Government securities was abandoned. At that time, rates on Treasury bills were practically on a no-yield basis, and the open-market committee decided that, whenever market conditions warranted, holdings of Treasury bills should be allowed to mature without replacement. By the end of 1939, 477 million dollars of Treasury bills had been liquidated, and since then none have been held in the System's open-market account.

This retirement of bills was offset by purchases of other securities in the fall of 1939. The outbreak of hostilities in Europe was the occasion for a break in the price of high-grade fixed-interest obligations. The Federal Reserve banks entered the market at this time and bought securities freely with a view to cushioning the decline and exerting an influence against disorganization in the capital market. This action shifted the emphasis of open-market operations from influencing the size of member-bank reserves to directly affecting conditions in the capital market.

During the past year open-market operations were directed at decreasing member-bank reserves. Holdings of Government obligations declined 305 million dollars, leaving 2,184 million in the portfolio on December 31, 1940. These holdings were only about one-third of the volume of excess reserves. To eliminate the remaining excess reserves would necessitate much higher reserve requirements than the upper limits now possible under existing law. Inasmuch as excess reserves are not distributed among the member banks in equal proportion to their deposits with the Federal Reserve system, the absorption of excess reserves by raising reserve requirements would present delicate problems of credit control.

Loans and Investments of Member Banks.

The inflow of gold caused an almost constant growth of demand deposits reported by member banks in 101 leading cities. In the absence of a sizable expansion of loans, especially during the first 9 months of the year, the growing volume of funds was partially utilized by the banks to expand their investment portfolios. Holdings of direct and fully guaranteed Government obligations and holdings of other securities were in-

creased by 1,300 million and 335 million dollars, respectively, from the end of 1939 to December 31, 1940 (see table 22). On this latter date the reporting member banks held 12,462 million dollars of Government securities and 3,675 million dollars of other securities. These securities comprised 63.2 percent of total loans and investments, an increase of one percent from December 27, 1939.

Table 21.—Loans and Investments of Weekly Reporting Member Banks, 1939–40

[Millions of dollars]

Item	Dec. 27, 1939	Dec. 31, 1940	Net change
Commercial, industrial and agricultural loans	4,400	5,018	+618
Loans for purchasing and carrying securities	1,222	1,049	−172
Other loans	3,137	3,323	+186
Total loans	8,758	9,390	+632
Investments in U. S. Government obligations	11,162	12,462	+1,300
Other investments	3,340	3,675	+335
Total investments	14,502	16,137	+1,635
Total loans and investments	23,260	25,527	+2,267

Source: Weekly statements of "Condition of Weekly Reporting Member Banks in 101 Leading Cities," Board of Governors of the Federal Reserve System.

During the first 8 months of the year the business demand for credit evidenced only minor and irregular fluctuations—the industrial decline through April and the subsequent expansion through August exerting comparatively little influence upon the volume of bank loans to commerce, industry, and agriculture. After the beginning of September, however, the demand for business loans showed more responsiveness to the rise in general business activity, expanding approximately 555 million dollars in the last 4 months of the year. (As pointed out in previous sections of this review, forward buying became active during this period.) Nonetheless, the increase for the entire year totaled only about 620 million dollars. Reporting-member-bank loans to brokers and other loans for the purpose of carrying securities declined by 170 million dollars.

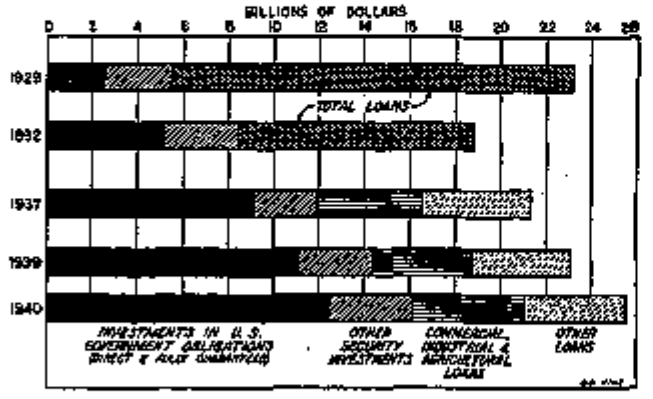

Figure 27.—Loans and Investments of Reporting Member Banks in 101 Leading Cities, 1929, 1932, 1937, 1939, and 1940 (Board of Governors of the Federal Reserve System).

Note.—Data are for the Wednesday nearest the end of the year. Due to changes in classification, comparable data for "Commercial, industrial, and agricultural" loans are not available separately for 1929 and 1932; therefore "Total loans" for these years are shown in this chart.

Total loans and investments of the reporting member banks at the close of 1940 exceeded the maximum attained in any previous year. Loans were only about half of those outstanding in 1929, as may be seen in figure 27, although the current volume of industrial production exceeded the best levels attained in 1929. This decrease in loans reflected both the decline of advances for purchasing or carrying securities and the continued growth of liquid surpluses available for working-capital needs in the hands of corporations—which has partially freed them from reliance upon the banking system. On the other hand, the steady growth in holdings of Government obligations, which had been characteristic of the expansion in bank portfolios since 1932, was continued during the year. These investments comprised nearly 50 percent of reporting-member-bank loans and investments at the close of 1940, as compared with 28 percent at the end of 1932 and 11 percent at the end of 1929.

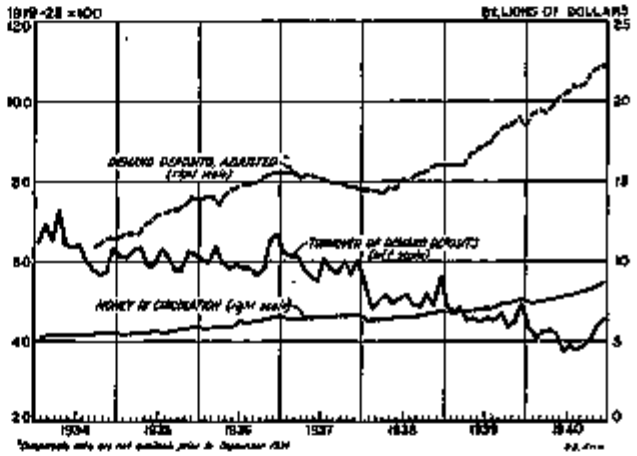

Figure 28.—Demand Deposits, Adjusted, and Index of Annual Rate of Turn-over of Demand Deposits (Adjusted for Seasonal Variations) in Reporting Member Banks in 101 Leading Cities, and Money in Circulation, 1934–40 (Demand Deposits, Adjusted, Board of Governors of the Federal Reserve System; Annual Rate of Turn-over of Demand Deposits, Federal Reserve Bank of New York; Money in Circulation, U. S. Treasury Department).

Note.—Data for "Demand Deposits, Adjusted," represent deposits other than interbank deposits and United States Government deposits, less cash items reported as on hand or in process of collection. Data for "Annual Rate of Turn-over of Demand Deposits," are based upon the relation between debits to individual accounts and demand deposits in reporting member banks in 101 leading cities. Figures for "Demand Deposits, Adjusted," are for the Wednesday nearest the end of each month, and data for "Money in Circulation" are as of the end of each month. The base period for the indexes of "Annual Rate of Turn-over of Demand Deposits" is a daily average for the years 1919 through 1923.

Deposit and Money Supplies.

Gold imports and the increase in loans and investments added 3,580 million dollars to the already swollen volume of bank deposits during the year, raising these to the record level of 22.3 billion dollars. The rate of deposit turn-over at commercial banks, however, fell further during the year as a large portion of the deposits that represented the proceeds of gold imports remained relatively inactive (see fig. 28). The rise in money in circulation carried the total well above the peak of any year to date. The increase was partly a corollary of the rapid improvement in business conditions, though it also represented the continuation of

an upward trend in the use of currency. Exports of currency to Europe during the year for hoarding and speculation fell off sharply and consequently were a negligible factor in the rise in currency in circulation.

Bank Credits and the Defense Program.

Several major financial developments during the year served to focus attention on present and prospective demands for funds with which to finance the expansion of plant and working capital required by the defense program. The developments centered primarily about reducing the risk of investment in plant and facilities producing items for which demand would be restricted after the emergency. To meet this need, the Government is using four principal methods for building and financing defense facilities:

1. The Army and Navy constructs arsenals, naval bases, etc., and the extension of existing Government properties, which are financed with Federal funds and are owned and operated by the Federal Government. In some cases actual operation of the plant may be delegated to private industry under a management-fee contract.

2. Corporations desiring plant ownership at all times may finance the expansion of plant necessary to fulfill Government contracts through their own resources, private sources, or through the Reconstruction Finance Corporation. Moreover, such a corporation may avail itself of the provision in the new excess-profits tax law that permits amortization in 5 years under certain circumstances where the plant is certified by the Government as necessary for defense.

3. Where the fulfillment of a Government contract requires too great a risk for private capital to assume alone, or where the facilities might have a future commercial use to the contractor, construction may be financed through the Emergency Plant Facilities Contract. This plan provides that the Government reimburse the contractor for the cost of the plant in 60 equal monthly installments—the corporation retaining title to the plant pending the completion of these payments, at which time title passes to the Government. The manufacturer may, however, purchase the plant from the Government at original cost, less depreciation, or at a price to be agreed upon by negotiation. The corporation may finance the construction in any manner it chooses, including any loans it may be able to secure from the Reconstruction Finance Corporation. As a means of providing security for bank credit used to finance this type of contract, a law was passed on October 9, permitting the assignment by individuals or corporations to banks or other financing institutions of payments due from the Federal Government.

4. To provide further capital for facilities which will bear large risks but which may have a future commercial use, the Reconstruction Finance Corporation created the Defense Plant Corporation. The latter provides funds to private manufacturers, who construct the plants themselves; however, the Defense Plant Corporation takes title in its own name and leases the facilities to manufacturers at $1 a year for a fixed term, subject to renewal and option to purchase. If at the end of the stated period the contractor wishes to exercise his option to purchase, the price is agreed upon by negotiation or is set at the original cost less depreciation.

In letters on November 18 to the Secretaries of War and Navy, the Federal Loan Administrator said: "* * * It is desirable that banks finance as much of the defense program as they can handle properly, but where credit is extended upon a definite agreement for reimbursement by the War or Navy Department, the interest rate should bear some relation to a Government-guaranteed obligation * * *." The Administrator also stated that ample funds were still available from the 1 billion dollars by which Congress had increased the borrowing authority of the Reconstruction Finance Corporation and that that organization, either directly, or through banks, or the Defense Plant Corporation, would arrange or adjust defense financing for working capital, plant expansion, and equipment, at an interest rate of 1½ percent, where either the War or Navy Department had definitely undertaken to reimburse manufacturers over a 5-year period. In the absence of such a commitment the rate would not exceed 4 percent.

Interest Rates

One effect of the persistent accumulation of surplus funds available for investment by banks was the continued decline of bond yields. The already low short-term open-market money rates showed no change, while an exception to the general movement was to be found in firmer rates to customers on commercial loans. Declining bond yields were characteristic of the year, except in May and June, when the drop in security values following the invasion of the Lowlands and France temporarily raised yields. The average yield of Treasury bonds due in 12 or more years fell to 1.88 percent at the close of the year. This may be compared with an average return of 2.68 percent during 1937. Another illustration is afforded by the average yield on municipal bonds, which fell from 3.10 percent in 1937 to slightly above 2 percent at the end of 1940. Along with the decline in the yields of corporate bonds there has occurred since the early part of 1938 a narrowing of the spread between high-grade bond yields and those of low-grade bonds. This has reflected the decreased risk of the latter—chiefly the result of increased business activity, though materially aided in some instances by revamped capital structures.

Open-market rates in New York for 4- to 6-month commercial paper, 90-day stock-exchange time loans, and prime bankers' acceptances, were unchanged during 1940 at 0.56 percent, 1.25 percent, and 0.44 percent, respectively. These rates have showed little

change since the downturn in business activity in the latter half of 1937 induced additional measures designed to bring monetary ease. Average commercial loan rates charged to customers by banks in 19 principal cities, including New York, increased a shade during the first 9 months of the year, an average rate of 2.68 percent being charged to customers in September compared with 2.59 percent in December 1939.

Dealers' quotations for 91-day Treasury bills were at par at the opening of 1940, such investments returning no yield. Subsequently, bills were purchased to

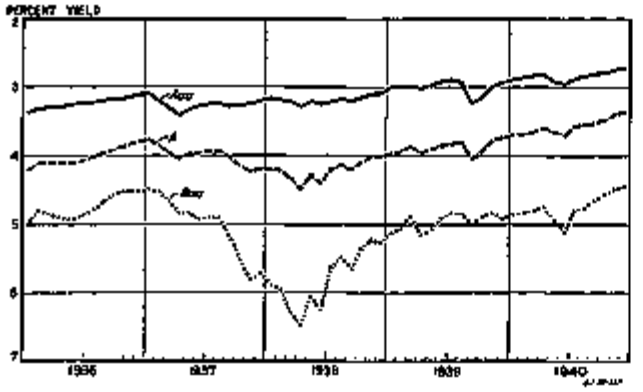

Figure 29.—Yield of Corporate Bonds, by Ratings, 1936–40 (Moody's Investors Service).

NOTE.—In the rating classification followed by Moody's Investors Service, Aaa indicates bonds which are and may be expected to remain the most conservative type of investment. Such bonds will tend to fluctuate in price with fluctuations of the prevailing long-term interest rates. Bonds rated A have distinct investment qualities, but do not have the elements of strength which would necessarily prevent their intrinsic worth from being affected by some special development; while those rated Baa have definitely less of an investment and more of a speculative character. Each group includes a representative number of bonds.

yield 0.02 percent, a rate that prevailed during the first 4 and the last 3 months of the year. Aside from hardening to 0.12 percent in June, there was little variation from this low level. Intermediary Treasury obligations with a maturity of from 3 to 5 years yielded 0.47 percent at the beginning of the year and 0.37 at the close.

Security Markets

Common-share prices failed to respond to the increased tempo of business during the year and closed the year well below the levels of the preceding year-end. It was apparent that, in determining the values of equities, investors were giving consideration to the possible tax burden, to the uncertainties of war, and to much longer term business prospects. In general, bond prices were similarly affected, but to a lesser degree.

Table 23.—Common-Stock Prices on Selected Dates, 1939–40

[1926=100]

Item	Dec. 27, 1939	May 8, 1940	June 5, 1940	Nov. 13, 1940	Dec. 25, 1940
420 stocks combined	91.3	91.5	00.9	84.7	79.6
350 industrials	107.4	107.6	80.9	90.1	93.1
40 utilities	80.5	87.1	71.9	80.2	77.0
30 railroads	28.8	28.0	21.3	20.0	25.8

Source: Standard Statistics Co., Inc.

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During the first 4 months of the year, share prices fluctuated within a narrow range and evidenced little net change for the period. The sharp reaction that followed the invasion of the Lowlands (see table 23) was accompanied by an increase in the volume of trading from 4 million shares for the week ended May 4 to

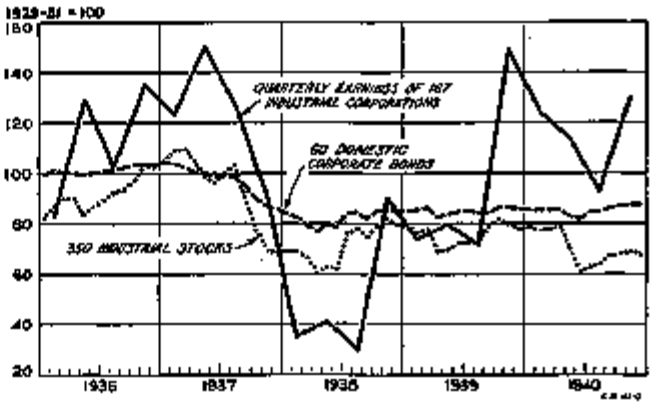

Figure 30.—Indexes of Industrial Stock Prices, Domestic Corporation Bond Prices, and Quarterly Earnings of Industrial Corporations, 1936–40 (Basic figures for stock and bond prices are from Standard Statistics Company, Inc., and quarterly earnings data are from the Federal Reserve Bank of New York, except for the fourth quarter of 1940, which was estimated by the U. S. Department of Commerce).

more than 17 million shares for the week ended May 18. In subsequent weeks the volume of trading declined to less than 2 million shares per week, and, after a brief period of additional weakness when France was invaded, average share prices evidenced hesitancy and caution although displaying a moderate upward drift until the middle of November. Thereafter they declined to the end of the year.

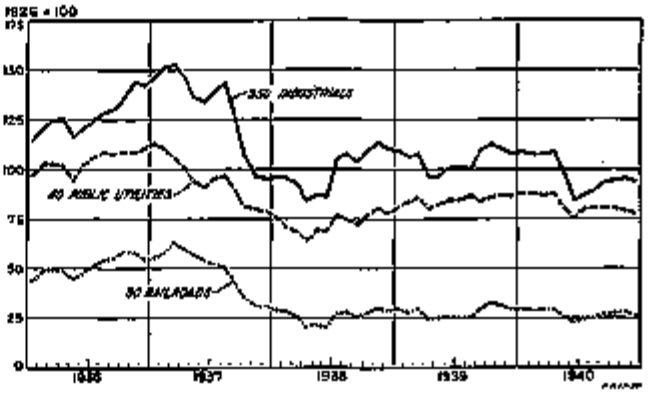

Figure 31.—Indexes of Stock Prices, by Major Groups, 1936–40 (Standard Statistics Company, Inc.).

Although corporate profits for the year exceeded 1939 corporate profits by about one-fourth (see fig. 30), the Standard Statistics index of 420 share prices declined approximately 13 percent. Average share prices of industrials fell 13 and of utilities 11 percent, while the average price of railroad shares fell 10 percent. (See fig. 31.)

Security issues representing the long-term indebtedness of industry closed the year almost unchanged from

their values of the preceding year-end. Within a more restricted range, bond prices followed the same movement of share prices, weak in May and June, touching the year's high in November. As indicated in the above discussion of bond yields, bond prices, in contrast to stocks, were higher at the end of 1940 than at the period just prior to the outbreak of the war in September 1939. Though investment demand increased, there was no stringency in the supply of investible funds.

Capital Market.

Despite expanding business activity during 1940, domestic corporate issues for new capital purposes aggregated only 724 million dollars—considerably less than the totals of 1,225 million for 1937 and 1,192 million for 1936. Including refunding securities, however, total

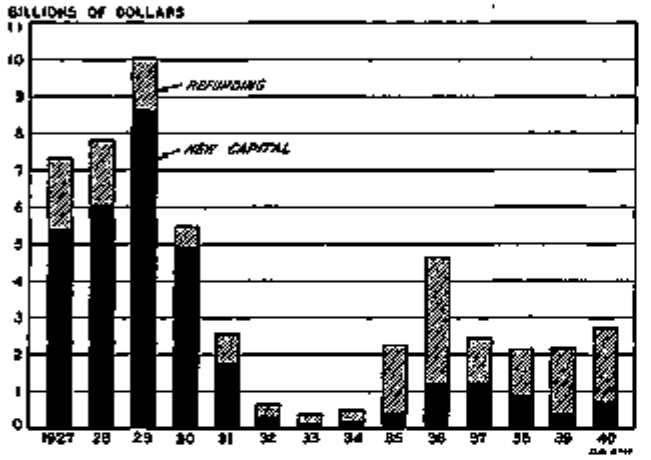

Figure 32.—Total Corporate Capital Flotations Publicly Announced, 1927–40 (Commercial and Financial Chronicle).

corporate issues of 2,721 million dollars during the year were the largest of any year since 1936 (fig. 32). The failure of new corporate issues to increase more markedly did not, of course, reflect a low rate of capital formation. Corporations have continually increased their liquid cash balances in recent years, and these have been available for expansion of productive facilities. Moreover, as pointed out above, much of the capital formation during the second half of 1940 represented new plant facilities that were financed directly by the Government or through the medium of bank loans.

Total capital flotations in the second half of 1940 rose substantially, while new issues increased in volume during each quarter of the year. In the final quarter new corporate capital aggregated 277 million dollars, 50 percent in excess of the third quarter and four times the volume in the last quarter of the previous year. This large amount was supplemented by an unusual quantity of refunding at the same time. Improved business, favorable market conditions (including low interest rates), and the low level of new financing of preceding months all contributed to increase the size and frequency with which new bond issues were offered to the public.

Among the component corporate groups, public utilities, experiencing their largest plant and equipment expansion since 1930, offered new and refunding capital issues of 267 million and 997 million dollars, respectively. Railroads were also prominent among the borrowers of new money, raising 144 million dollars, or nearly 20 percent of the total new capital. Public bodies offered fewer new money issues, though they took advantage of the strong position of the bond market and refunded a larger volume of State and municipal bonds than in previous years. The 1940 aggregate of 1,235 million dollars of municipal flotations was the largest for any year since 1931. Common and preferred stock financing increased to 328 million dollars for the year, exceeding the volume of the two preceding years, though less than half of the 1937 figure. The value of common and preferred stock flotations in 1940 was exceedingly small when compared with the total of 1,527 million dollars sold a decade ago. However, the large amount of refunding activity caused bond and note flotations of 2,393 million dollars to compare more favorably with the total of 3,431 million borrowed in 1930.

Table 14.—Capital Flotations by Major Industries, 1940

[Millions of dollars]

Industry	New capital	Refunding	Total
Railroads	144.8	227.8	372.2
Public utilities	266.7	996.9	1,263.6
Iron, steel, coal, copper, etc	14.7	349.0	364.2
Motors and accessories	4.1	1.3	5.4
Other industrial and manufacturing	102.1	146.4	248.5
Oil	12.7	105.5	118.2
Shipping	2.1	1.5	3.6
All other	177.4	167.4	344.8
Total corporate securities	724.3	1,996.4	2,720.7

Source: Commercial and Financial Chronicle.

Federal Financial Operations

While the fiscal situation of the Federal Government in 1940 was radically changed by military developments abroad, it was still influenced by conditions that prevailed in 1939. An upward movement of business in 1939 produced larger tax returns to the Treasury during 1940, and these were augmented by defense taxes collected during the latter half of the year. As a result, Treasury receipts were nearly a billion dollars larger than in 1939.

Expenditures increased almost as much as receipts, but with respect to these the year divides itself into two quite different periods. During the first 9 months total expenditures were little changed from those of 1939, so the increased revenues resulted in a budget deficit considerably smaller than that of the same period in 1939. During the last quarter of 1940, however, national-defense outlays were gradually increased, and their volume was largely instrumental in raising the 1940 deficit to a total almost as large as that of the year before.

Other features of the Government financial program were the tremendous increase in defense appropriations, the passage of two Revenue Acts, and the utilization of Federal corporations and credit agencies in the defense effort.

Treasury Expenditures.

Federal expenditures exceeded 10 billion dollars in 1940, an increase of nearly 900 million dollars over 1939. Largely responsible for the increase were the expanded outlays for national defense of 2,600 million dollars, compared with 1,300 million dollars in 1939—which more than offset declines centered chiefly in public works, work programs, and relief. Although national-defense expenditures have been following an upward trend for several years, the rate was greatly accelerated after the inauguration of the defense program last June. More than a billion dollars was spent for this purpose during the final quarter of 1940, the December total rising to 476 million dollars from 134 million in the first month of the year. In the course of the program thus far, Army expenditures have risen more sharply than outlays by the Navy—chiefly as a result of cantonment construction, supply purchases, and other expenses incident to the expansion of personnel under the various mobilization programs.

Expenditures for public works, work programs, and relief in 1940 were almost 600 million dollars less than in the previous year. As indicated by figure 33, outlays of this kind have been gradually declining since the beginning of 1939—the rate of decline being smaller in 1940, and a small increase marking the final quarter. It will be recalled that an expanded program of government spending along these lines was projected in 1938 following the contraction in general business that occurred in the beginning of that year. This program had been timed so as to reach its peak at the beginning of 1939, and there has been a gradual tapering since that time. The largest reduction occurred in outlays made by the Work Projects Administration. This agency, which employed approximately 3 million workers and spent a little more than 500 million dollars during the first quarter of 1939, had reduced its rolls to about 1.8 million workers by the end of 1940 and had cut expenditures in the final quarter of that year to 330 million dollars. Inasmuch as there was little change in expenditures of the Civilian Conservation Corps and an increase in those of the National Youth Administration, the whole decrease of more than 300 million dollars in work programs and relief during 1940 was borne by the Work Projects Administration.

Public-works expenditures totaled 839 million dollars in 1940, compared with 1,057 million in 1939. As with work programs and relief, the decline reflected the tapering off of the 1938 program of the Public Works Administration. Total public-works expenditures averaged 264 million dollars per quarter in 1939, compared with 210 million in 1940, and reached a low point for the 2-year period in the second quarter of 1940 when outlays were slightly less than 200 million dollars. During the latter half of 1940 outlays increased somewhat, amounting to 230 million dollars in the final quarter of the year. This increase was partly seasonal, but it was also affected by the fact that many public-works projects related to national defense have been increased. This latter process has also been taking place in the activities of the WPA, partly explaining the maintenance of these expenditures at their present volumes. Other reasons for the slower decline in out-

Table 25.—Budget Expenditures by Major Types, Calendar Years [1]

[Millions of dollars]

Major type	1936, total [2]	1937, total [2]	1938, total [2]	1939					1940				
				First quarter	Second quarter	Third quarter	Fourth quarter	Total	First quarter	Second quarter	Third quarter	Fourth quarter	Total
National defense [3]	990	985	1,116	288	285	335	393	1,300	440	475	602	1,146	2,634
Public works [4]	1,185	1,005	915	259	249	278	276	1,057	202	196	210	220	839
Work programs and relief	2,479	1,990	2,310	616	552	479	441	2,118	464	472	413	434	1,773
Retirements, pensions, and assistance	665	635	800	220	226	264	235	935	240	257	276	272	1,046
Agricultural programs	576	735	810	292	286	300	340	1,218	424	272	154	252	1,082
Departmental [4 5]	476	545	625	208	196	212	209	829	298	217	234	209	959
Other	315	215	200	18	40	84	32	142	22	41	65	21	149
Interest	795	895	920	167	246	185	271	971	262	384	188	305	1,076
Debt retirement	120	90	50	10	23	0	10	55	51	59	16	17	144
Transfers to trust accounts	[6] 1,775	[6] 1,180	570	157	161	285	144	765	140	159	[7] 304	[7] 176	[7] 779
Total	9,275	8,385	8,400	2,236	2,500	2,801	2,343	9,878	2,386	2,511	[7] 2,455	[7] 3,031	[7] 10,382
Total, excluding debt retirement and transfers to trust accounts	7,380	7,115	7,780	2,068	2,316	2,089	2,189	8,661	2,195	2,293	2,134	2,838	9,460

[1] General and special accounts, basis of the Daily Statement of the U. S. Treasury; excludes budget transactions to account of Reconstruction Finance Corporation and Commodity Credit Corporation.

[2] Figures for these years rounded to nearest 5 millions.

[3] Includes Panama Canal and items formerly classified under "Public works—National defense" in the daily Treasury statement.

[4] Classifications revised beginning with July 1939; certain expenditures classified under "Public works" prior to this period are now classified under "Departmental" in the daily Treasury statement. Data for 1936, 1937, and 1938 are on the old basis; figures for the first two quarters of 1939 have been revised in accordance with the classification on the new basis.

[5] Includes general expenses of Rural Electrification Administration.

[6] Includes adjusted service certificates.

[7] Classification revised beginning with July 1940; appropriations equal to "Social Security—Employment taxes" collected and deposited as provided under sec. 201 (a) of the Social Security Act Amendments of 1939 less reimbursements to the general fund for administrative expenses were, prior to July 1, 1940, included as expenditures under "Transfers to trust accounts." Figures for the last two quarters of 1940 are adjusted to the old classification in order to make the data comparable for the periods shown in this table.

lays for public works, work programs, and relief are that reductions are usually sharpest immediately following the termination of a major program and gradually approach a minimum of workers who can only be absorbed into other fields with difficulty, either because

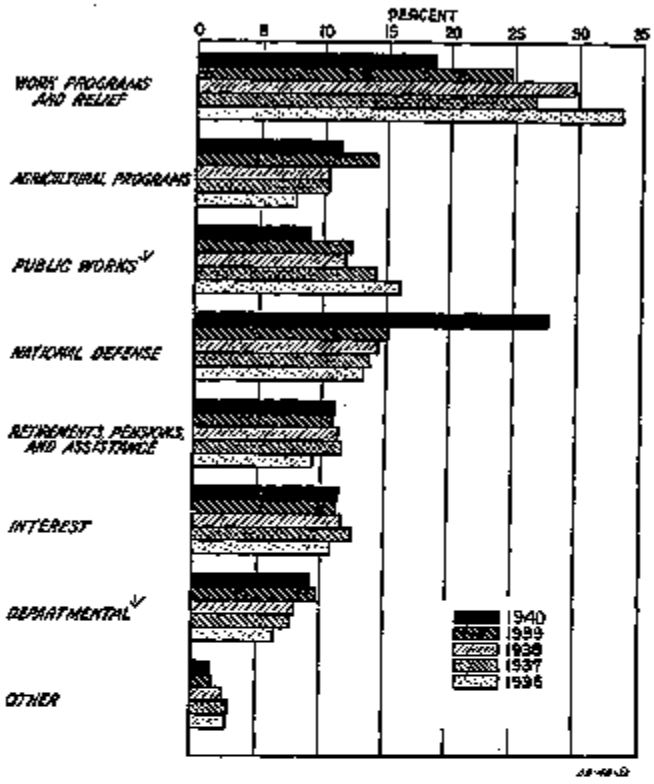

Figure 33.—Relative Importance of Major Categories of Budget Expenditures, Excluding Debt Retirement, Transfers to Trust Accounts, and Certain Governmental Corporations, 1936–40 (On Basis of Daily Statement of the U. S. Treasury).

[1] Data for 1939 and 1940 are not strictly comparable with those for earlier years. See table 25, footnote 4.

their particular skills are not demanded by industries expanding at the moment or because of geographic factors affecting the mobility of labor.

Budget expenditures for carrying out the various agricultural programs of the Government declined from 1,218 million dollars in 1939 to 1,082 million in 1940. This, however, does not indicate any curtailment of Government activity in the agricultural field, because the reduction was largely the result of excess capital funds returned to the Treasury by various farm-credit agencies. The major agricultural programs involving direct Treasury financing continued through 1940 at substantially the same volumes reached in 1939. Payments under the Soil Conservation and Domestic Allotment Act were just under 600 million dollars in both years, while payments under the Price Adjustment Act of 1938 and Parity Payments increased to 212 million dollars in 1940, compared with 201 million in the preceding year. Expenditures of the Farm Security Administration were reduced 39 million dollars in 1940 and totaled 138 million for the year, while those under the Farm Tenant Act amounted to 46 million for the year—an increase of 13 million dollars over 1939.

Increased outlays for Retirements, Pensions, and Assistance, and for Interest in 1940, continue trends that have been upward for some years. The first reflects the gradual expansion that had been taking place in coverage and payments under the Social Security Program, and the second is the result of the expanding public debt. Transfers to trust accounts, including Old-Age and Survivors Insurance funds transferred directly from receipts since July 1, 1940, amounted to 779 million dollars during the year, compared with 765 million the year before, while departmental outlays increased 40 million over those of 1939 and totaled 869 million for the year as a whole.

The pronounced changes in the volume and direction of Government expenditures during 1940 are clearly brought out if one considers the major types of expenditures as percentages of the total. Changes in the relative percentage importance of the major categories over the past few years are shown in figure 33. National-defense outlays jumped from 15 percent of the total in 1939 to 28 percent of the total in 1940, while work programs and relief comprised less than 20 percent of the total compared with last year's 25 percent. Save for the year 1938, the relative importance of this latter type of expenditure has steadily declined since 1936, when it accounted for 30 percent of the total. Public-works outlays dropped from 12 to 9 percent of the total from 1939 to 1940, and agricultural payments declined from 14 to 11 percent over the same period. Changes in other categories were slight.

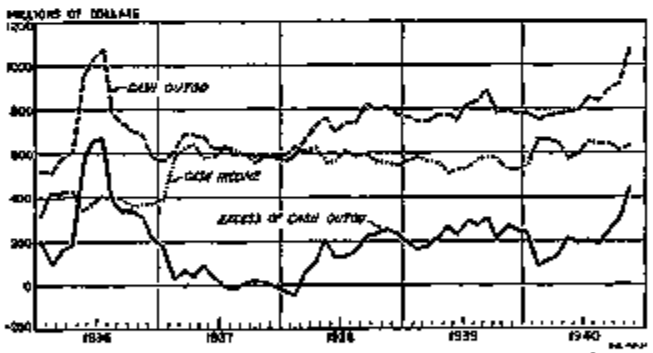

Figure 34.—Cash Income and Outgo of the Treasury, and Excess of Cash Outgo, 1936–40 (On Basis of Daily Statement of the U. S. Treasury).

NOTE.—Data are plotted on a 3-month moving average, centered at the second month. Basic figures for January 1941 were not available in time to compute the moving average figure for December 1940.

National Defense Appropriations.

Any account of Federal financial operations would be incomplete without some reference to the magnitude of appropriations for the 1941 fiscal year which were made in 1940. These had scarcely begun to exert a major influence on Government outlays by the end of the year, and even the large increases in defense expenditures during November and December were not enough to raise the Treasury's net cash outgo for 1940 (see figure 34) to the volume reached in 1939. The

drive for defense, however, resulted in tremendous appropriations and contract authorizations, and their ever increasing impact upon business volumes became the most striking economic development of the year. Indirectly the very size of the defense program was tantamount to an announcement by the Government that a fuller utilization of the Nation's economic resources than had been achieved in many years was a necessity, while the program directly expressed itself in the placement of orders with business totaling more than 11 billion dollars by the year-end. Secondary effects, apparent in the general business expansion of the autumn months, stemmed from both the larger buying power generated as industry set about filling defense orders and from expansion in other lines of business as the implications of the defense program became evident.

The first budget estimates for fiscal year 1941, which were presented to the Congress in January 1940, called for expenditures of 8.4 billion dollars. It was recognized at the time that uncertainties surrounding the effects of the war upon American economic life made these original estimates highly tentative, and major revisions were made as events developed throughout the year. With the presentation of the 1942 budget in January 1941, expenditures were estimated at 13.3 billion dollars for the 1941 fiscal year, and at 17.6 billion in the fiscal year 1942. The defense program is, of course, the reason for these increases, with the Budget estimate for defense through June 1942 as follows:

	Appropriations, authorizations, and recommendations, June 1940–June 1942 [1] *(Millions of dollars)*
Army	13,704
Navy	11,587
Expansion of industrial plant	1,902
Other defense activities	1,287
Total	28,480

[1] From Budget Message, January 1941.

Total appropriations for the 1941 fiscal year amounted to 16.3 billion dollars, excluding trust-fund accounts, and contracts were authorized to an estimated total of 4.2 billion. Some indication of the relative importance of defense in comparison with the total is conveyed by table 26, which presents appropriations and authorizations for the War and Navy Departments, together with major defense items of other agencies. This is not a complete tabulation of the defense activities of the Government, but it does contain the major budgetary items. The activities of the Government corporations, particularly of the Reconstruction Finance Corporation, are not included, nor is any attempt made to allocate arbitrarily the amounts that other Government agencies will spend as they redirect some of their activities to further the defense program. For example, the Coast Guard, the Department of Justice, the Department of Commerce, and other agencies will have many of their activities closely geared to the defense program, but these are not included here.

Table 26.—Appropriations and Authorizations, Fiscal Year 1941 [1]

[Millions of dollars]

Item	Amount
Total appropriations and authorizations	20,440
Total defense items	12,585
War Department	8,720
Navy Department	3,273
Housing (or allocation by the President)	100
Defense housing (Federal Works Agency)	150
Training for defense workers (Federal Security Agency)	76
Procurement of strategic materials (Treasury Department)	90
Airport development (Department of Commerce)	40
War risk insurance fund (Maritime Commission)	40
Civilian pilot training (Department of Commerce)	37
Defense activities (National Youth Administration)	33
Defense power (Tennessee Valley Authority)	25
Selective Service System	25

[1] Excludes trust-fund accounts.

Of the 11.2 billion dollars in orders placed under the defense program by the year-end, 4.5 billion was for ship construction and equipment, 2.2 billion for airplanes, engines, parts, and equipment, 1.9 billion for ordnance and ammunition, 1.4 billion for construction other than shipbuilding, and 1.2 billion for other equipment, supplies, and material.

Table 27 indicates the magnitude of the changes in current and projected defense appropriations:

Table 27.—Appropriations for War and Navy Departments, by Fiscal Years

[Millions of dollars]

Item	1940	1941	1942 [1]
Total War Department	920	5,709	6,075
Selected items:			
Air Corps	185	1,191	1,641
Ordnance Department	67	889	1,218
Construction at military posts	85	725	104
Expediting production		401	498
Subsistence of Army	95	197	222
Clothing and equipage	25	416	345
Total Navy Department	944	3,312	3,350
Selected items:			
Aviation	111	358	435
Ordnance	93	244	168
Public works, Bureau of Yards and Docks	64	208	260
Maintenance, Bureau of Ships	86	183	206
Naval vessels, alterations and repairs	7	116	142
Naval vessels, construction	282	946	1,416

[1] Estimated, Budget Message, January 1941.

The subgroups of selected items are presented to show the several directions now being taken by Government spending as our military and naval forces expand. The items are largely self-explanatory, but some mention should be made of the War Department's funds for expediting production. The 1941 appropriation for this purpose amounted to 401 million dollars, with additional contract authorizations of 303 million. The Secretary of War, upon the recommendation of the Defense Commission, may devote these funds to a wide variety of uses in connection with the production of military equipment and supplies. They are being used chiefly for the construction of Government-owned plants or Government-owned facilities at private plants

which are then operated by manufacturers on a fixed-fee basis.

The largest increases in 1941 appropriations over 1940 were in sums voted for aviation expansion and for ordnance. Other major increases were for various types of construction, and for the wide variety of materials needed for the subsistence, clothing, and equipment of a larger Army.

Treasury Receipts.

The tax revenues of the Federal Government were almost a billion dollars larger in 1940 than in the preceding year, approximately half of the increase being the result of larger yields from income taxes. While minor changes in the Revenue Act of 1939 and the passage of the Public Salary Tax in that year had a small effect on the yield, the chief reason for the larger returns from incomes was the rise in the National Income from 63.6 billion dollars in 1938 to 69.4 billion dollars in 1939. The increased income tax rates specified in the two Revenue Acts of 1940 will not be reflected in Government receipts until taxes on 1940 incomes are paid.

Returns to the Treasury from other internal revenue taxes were larger by more than 275 million dollars in 1940 than they were in 1939. These revenues are, for the most part, derived from excises levied upon commodities and services, and, in contrast to income-tax yields, these have already been affected by the Revenue Act of 1940. The 5-year defense tax increases applied to alcoholic beverages, cigarettes, admissions, and most other commodities and services carried in the excise schedules, became operative on July 1, 1940, and their effect is clearly seen in the increased revenues for the last half of the year. Furthermore, returns from taxation of this type react immediately to changes in the volume of business activity and have thus been considerably augmented by the general business advance which was just getting under way when the new rates went into effect. This combination of expanding business and higher rates since July has resulted in an increase of 240 million dollars in taxes collected, compared with the same period a year ago. In other words, almost 90 percent of the total 1940 increase in yields of this type occurred in the final 6 months of the year.

Social-security taxes, composed mainly of pay-roll levies for the account of the Old Age and Survivors' Insurance trust fund together with similar levies for railroad retirement, amounted to 873 million dollars in 1940, compared with 783 million dollars in 1939. While this was in some measure the result of the Social Security Act amendments of 1939 which covered employees on American vessels and the employees of member banks of the Federal Reserve System, the bulk of the increase reflects the expansion in employment and pay rolls throughout industry generally. Customs receipts amounted to 330 million dollars in 1940—only 3 million dollars less than in the preceding year.

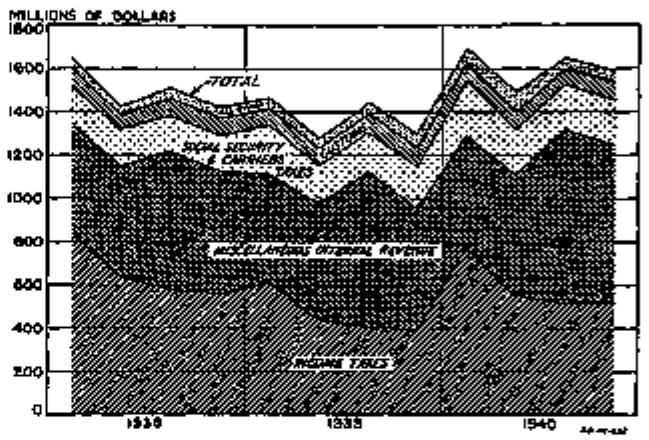

Figure 38.—Budget Receipts, by Major Categories, 1938–41 (On Basis of Daily Statement of the U. S. Treasury).

Revenue Acts of 1940.

Two revenue acts were passed by Congress during the year—the first prompted by the desire to cover increasing appropriations in part with additional revenue, and the second (mainly an excess-profits tax) prompted by a desire to restrict large and fortuitous gains that may result from the defense program.

Both the income and excise provisions of the internal revenue code were altered by the first Revenue Act of 1940. Personal exemptions were lowered by 20 percent, and the income-tax structure was further modified

Table 28.—Budget Receipts by Major Types, Calendar Years

[Millions of dollars]

Major type	1936, total	1937, total	1938, total	1939					1940				
				First quarter	Second quarter	Third quarter	Fourth quarter	Total	First quarter	Second quarter	Third quarter	Fourth quarter	Total
Income taxes (including unjust-enrichment tax)	1,578	2,617	2,619	611	440	409	391	1,851	772	552	519	522	2,366
Social security taxes [1]		666	673	228	180	183	192	783	252	207	206	208	873
Other internal revenue	2,108	2,317	2,211	497	535	715	561	2,308	514	555	705	720	2,495
Customs	414	483	309	75	79	88	89	333	90	81	71	87	330
All other	213	230	180	30	44	52	84	210	63	84	52	54	253
Total	4,372	6,312	5,993	1,403	1,278	1,447	1,296	5,925	1,693	1,488	1,645	1,591	6,415

[1] General and special accounts, basis of the Daily Statement of the U. S. Treasury.

[2] Includes taxes on carriers and their employees.

by widening surtax classes and increasing surtax rates on surtax net income between $6,000 and $100,000. In addition, new defense tax rates were applied to a wide range of commodities and services in the excise field, the principal exceptions being tobacco other than cigarettes, communication facilities, and regulatory taxes. The rate of increase, generally 10 percent, varied from 8⅓ percent in the case of the cigarette tax to 50 percent in that of the gasoline tax. These defense tax rates are applicable for a period of 5 years, and their proceeds are earmarked for the purpose of retiring the issues of "National Defense Series" notes that were authorized as a means of financing the defense program. Similar 5-year increases of 10 percent were applied to the taxes on incomes, capital stock, adjusted declared value excess-profits, estate, and gift taxes, the proceeds being similarly earmarked.

The second Revenue Act of 1940 raised corporation taxes to 22½ percent of the normal tax net income over $38,566. This, when added to the 5-year defense tax specified in the first Revenue Act, fixes the rate for large corporations at 24 percent of their normal tax net income. The main part of the act consists of an excess-profits tax levied at graduated rates from 25 percent on adjusted excess-profits net income less than $20,000, to 50 percent on that portion of adjusted excess-profits net income in excess of $500,000. Excess profits taxable under the act are measured by the difference between the excess profits normal tax net income in the taxable year and a credit which may be based on either invested capital or average earnings. If the invested-capital base is used, the credit is an amount equal to 8 percent of the invested capital of the taxable year, and if the average-earnings base is used, the credit is an amount equal to 95 percent of the average base period (1936–39) net income plus 8 percent of the net capital addition or minus 6 percent of the net capital reduction in the taxable year. A flat credit of $5,000 is allowed in all cases.

Other provisions of the act suspended the profit-limiting regulations of the Vinson Act and of the Merchant Marine Act of 1936 for any taxable year in which the excess-profits tax is applicable, and important provisions were made for amortizing the costs of emergency facilities constructed or acquired in the interests of national defense. Emergency facilities constructed or acquired after June 10, 1940, may be amortized over a period of 60 months provided they have been certified by the Advisory Commission to the Council of National Defense and either the Secretary of War or the Secretary of the Navy as necessary in the interest of national defense during the emergency period. Provision is also made for payment by the United States of the unamortized cost of a facility under such regulations as the President may prescribe, and a final provision for the protection of the United States indicates that if the Government contracts to pay for the facility, either directly or indirectly, no amortization deduction shall be allowed after the contract is made, unless the Advisory Commission to the Council of National Defense and either the Secretary of War or the Secretary of the Navy certify that the contract adequately protects the United States with reference to the future use and disposition of such emergency facility.

From the passage of the second Revenue Act through January 15, 1941, only 67 corporations had been issued tax "certificates of necessity," the total cost of the expansion so certified being estimated at about 120 million dollars. The majority are expanding their facilities for the manufacture of machine tools and aircraft.

Public Debt.

Although the budget deficit in 1940 was slightly smaller than that of 1939, the gross public debt increased by a little more than 3 billion dollars, compared with 2.5 billion dollars in the preceding year. This is explained by a reduction in the net cash receipts of nonbudgetary accounts, together with the fact that the Treasury drew on its general-fund balance for a smaller amount in the year just closed. An expansion of the debt was thus necessary in order to provide for the deficiency in nonbudgetary receipts and to maintain the general-fund balance at the desired point. As the year closed, the gross debt had just passed the former statutory limit of 45 billion dollars.

In expanding the debt the Treasury drew upon three main sources of funds in approximately equal degrees, with the largest single amount coming from the sale of securities to the various special series accounts. These accounts, which have been taking large blocks of Government securities in recent years, are comprised, in the main, of the Old Age Reserve Account and the Unemployment Trust Fund. Net investments of the special series accounts totaled 1,138 million dollars in 1940, an increase of 63 million dollars over 1939. In percentage terms, however, the relative volume of the total increase in the gross public debt absorbed by special series accounts declined from 43 percent to 37 percent in the 2 years. This is an indication of the relative inflexibility of the volume of special series funds available for investment compared with movements in the total gross debt itself. When gross debt increases are small, a large proportion of the increase can be absorbed by special series accounts—a condition not without its drawbacks at a time when debt increases are used in an attempt to stimulate total demand in the economy. On the other hand, when larger debt increases occur, the special series accounts do not keep pace with them and more emphasis is laid upon other sources of funds. This latter condition has now become the significant one for the American economy, in view of the influence the defense program will have on the debt structure.

Deducting special-series-account purchases from the

increase in the gross public debt, therefore, it is found that the publicly offered debt increased 1,944 million dollars during the year, compared with an increase of 1,440 million dollars in 1939. Of this increase, 986 million dollars was derived from the sale of United States Savings Bonds and 958 million dollars from the sale of securities through regular financial and banking channels.

Market funds were secured from two major financing operations by the Treasury during the latter half of the year. On July 22, 681 million dollars was secured by the sale of 14–16 year bonds, carrying an interest rate of 2½ percent, 50 million dollars of this issue being sold directly to Government investment accounts. The second major offering occurred on December 18, when 531 million dollars was secured by the sale of National Defense series notes maturing in 1945. These were authorized by legislation which raised the debt limit to 49 billion dollars earlier in the year, and they were the first issue of this type of obligation. A noteworthy characteristic of this issue is that income from these notes is subject to all Federal income taxes, while their ⅞ percent interest rate is no higher than that of a comparable tax-exempt issue of March 1940. This may mark the beginning of a more general departure from the practice of exempting income from Government securities from taxes now imposed upon income from other sources.

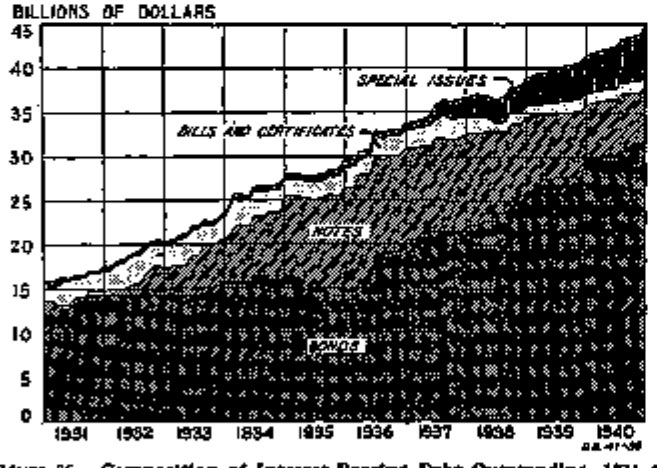

Figure 36.—Composition of Interest-Bearing Debt Outstanding, 1931–40 (On Basis of Daily Statement of the U. S. Treasury).

Table 29 presents, in summary form, changes in the gross public debt in 1940 compared with those in 1939. The most important change in cash returns from market operations came from a net increase of 434 million dollars in Treasury notes offered during the year, compared with net retirements of 59 million dollars in 1939. Exchange operations resulted in a net replacement of Treasury notes with Treasury bonds to the amount of 445 million dollars. The process of exchanging Treasury notes for Treasury bonds, which took place to the extent of almost 5 billion dollars in 1938 and 1939, was thus greatly curtailed during 1940. No significant change occurred in the rate of interest paid by the Treasury during the year, the computed rate of interest on the interest-bearing public debt outstanding being 2.598 in December 1939 and 2.566 in December 1940.

Table 29.—Changes in Gross Public Debt, 1939–40

[Millions of dollars]

Item	1939	1940
Market operations:		
Cash:		
Treasury bills	+149	−81
Treasury notes	−59	+434
Treasury bonds	+644	+554
United States savings bonds	+707	+986
Other	−61	−49
Total cash	+1,440	+1,944
Exchanges:		
Treasury notes	−2,232	−445
Treasury bonds	+2,232	+445
Special series	+1,075	+1,138
Total gross debt	+2,515	+3,082

Federal Corporations and Credit Agencies.

A complete picture of Federal financial operations in any year must consider the transactions of the various Federal corporations and credit agencies that have been set up in recent years as a means of implementing Government activity in a number of economic fields. To a large extent these agencies lead financial lives of their own which are reflected in the regular budgetary transactions only as they secure capital or administrative funds from the Treasury or return excess capital funds to it. Inasmuch as these capital transfers do not give a picture of the activities of the agencies involved, tables showing the changes that have taken place in their assets and liabilities during the year are presented as an over-all summary of their loan, investment, and other transactions for the period.

Assets of Federal corporations and credit agencies amounted to 13,279 million dollars on November 30, 1940—an increase of 455 million over the preceding year. Major increases occurred in the assets of the Commodity Credit Corporation, mainly representing larger holdings of agricultural commodities plus holdings of rubber acquired under the 1939 barter agreement with Great Britain, and in assets of the Farm Security Administration and the United States Housing Authority, mainly representing increases in loans by these agencies. The largest decrease in assets occurred in those of the Home Owners' Loan Corporation, due in part to a decline in loans outstanding but in larger measure to the liquidation of property holdings.

Almost half of the 345-million-dollar increase in assets of the lending agencies consisted of an increase in net loans, while the balance represents larger amounts of cash, accounts receivable, business property, and assets held for sale. In addition to the loans of the Farm Security Administration and the United States Housing Authority previously mentioned, marked increases resulted from the expanding rural-electrification program and from the activities of the Export-Import Bank, whose wider program in connection with hemisphere defense was just getting under way as the year came to a close. It should be emphasized that comparative balance sheets present only a summary account of agency activities and are incomplete as a measure of the total influence that the agencies exert on economic life. This is particularly true in the loan field, where comparative balance sheets present only the net results of loan operations and give no indication of the total volume of loans made and repaid. Table 30 shows the volume of loans granted and repaid during the first 10 months of 1940; these data, reported to the Treasury by the several agencies, give some indication of the gross volume of their loan activities.

Table 32 shows the outstanding loans of Government corporations and credit agencies by type of borrower. The largest increases during the year ended November 30, 1940, were in agricultural loans to cooperative associations and in loans on crops, livestock, and commodities, while other sizable increases were for low-cost housing and foreign trade—the latter representing the expanding activities of the Export-Import Bank. Farm-mortgage loans declined 98 million dollars and urban mortgage loans 31 million.

Table 30.—Loans and Repayments of Federal Credit Agencies, Jan. 1–Oct. 31, 1940

[Millions of dollars]

Agency	Loans	Repayments
Reconstruction Finance Corporation	267.2	311.9
Commodity Credit Corporation	200.1	100.7
Export-Import Bank	20.5	5.7
Federal Deposit Insurance Corporation	73.7	30.5
Rural Electrification Administration	50.5	2.1
Home Owners' Loan Corporation	33.0	144.9
Federal home loan banks	101.8	101.7
United States Housing Authority	281.0	225.3
Federal Farm Mortgage Corporation	27.3	52.2
Central Bank for Cooperatives	34.2	25.7
Disaster Loan Corporation	3.9	1.9
Electric Home and Farm Authority	9.7	6.5
Federal National Mortgage Association	39.3	10.4
Reconstruction Finance Corporation Mortgage Company	20.2	14.4
Total (10 months)	1,109.2	1,043.9

Table 31.—Assets of Governmental Corporations and Credit Agencies, Nov. 30, 1940

[Millions of dollars]

Agency	Loans, preferred capital stock, etc.		Investments				Total assets [1]	
			United States and United States-guaranteed securities		Other			
	Nov. 30, 1940	Change, November 1939–November 1940	Nov. 30, 1940	Change, November 1939–November 1940	Nov. 30, 1940	Change, November 1939–November 1940	Nov. 30, 1940	Change, November 1939–November 1940
LENDING AGENCIES								
Industrial, financial, etc.:								
Reconstruction Finance Corporation	1,533	−57	42	+1	8		1,682	−46
Export-Import Bank of Washington	91	+43					107	+56
United States Maritime Commission	37	−12			64	+23	282	+63
Rural Electrification Administration	244	+69					247	+70
Home mortgage and housing:								
Home Owners' Loan Corporation	[2] 2,163	−92					3,707	−259
Federal Home Loan Bank Board	136	+17	30				322	+71
The R. F. C. Mortgage Company	65	+9					67	+8
Federal National Mortgage Association	176	+35	1	+1			183	+37
Federal savings and loan associations	27	−13					27	−13
United States Housing Authority	170	+60	5	+2			269	+100
Agricultural:								
Commodity Credit Corporation	259	+37					927	+232
Federal Farm Mortgage Corporation	452	−45			763	+3	1,515	−26
Federal intermediate credit banks	208	+28	36	−39			278	−41
Federal land banks	1,259	−84	62	+2	2	+2	2,239	−71
Banks for cooperatives	77	+4	29	−56	22	+15	150	−38
Farm Credit Administration	235	−4					277	−10
Farm Security Administration	373	+117					492	+146
Public Works Administration	80	+19					80	+19
Disaster Loan Corporation	21	+2					23	+3
Other [3]	61		41	+17	72	−30	325	+39
Total, lending agencies	8,359	+159	283	−74	902	+13	12,174	+345
INSURANCE AGENCIES								
Federal Deposit Insurance Corporation	60	+5	383	+21			631	+41
Federal Savings and Loan Insurance Corporation			125	+5			128	+6
Federal Housing Administration			26	+1			70	+20
Federal Crop Insurance Corporation							19	+5
Total, insurance agencies	60	+5	534	+27			748	+72
Tennessee Valley Authority							357	+38
Grand total	8,619	+164	827	−47	902	+13	13,279	+456

[1] Also includes cash, receivables, and property holdings.
[2] Including shares in State and Federal savings and loan associations.
[3] Regional agricultural credit corporations, production credit corporations, war emergency corporations and agencies (in liquidation), Electric Home and Farm Authority, Federal Prison Industries, Inc., Indian loans of Interior Department, Inland Waterways Corporation, National defense corporations, Panama Railroad Co., Puerto Rico Reconstruction Administration, Tennessee Valley Associated Cooperatives, Inc., Treasury Department railroad loans, and securities received from the Reconstruction Finance Corporation under act of Feb. 24, 1938.

Government corporations and credit agencies, having been set up to deal with emergency situations in former years, were readily available as instruments for carrying out Government policies in the defense emergency. The agricultural agencies became active in cushioning the effects of shrunken export markets, and the Tennessee Valley Authority undertook to expand its power production for use by defense industries. The main agencies utilized in actively advancing the defense program to date, however, have been those connected with the defense housing program and, in particular, the special corporations established by the Reconstruction Finance Corporation to deal with special phases of defense activity.

Commitments aggregating approximately 1,100 million dollars had been made by the Reconstruction Finance Corporation and its special defense corporations by January 16, 1940. These include 190 million dollars for the acquisition of a reserve supply of raw rubber by the Rubber Reserve Company, a corporation created on June 28 with capital provided by the Reconstruction Finance Corporation. This commitment involves the purchase of 430,000 tons of crude rubber, of which 52,516 tons have been delivered, 20,139 tons are in transit, and 16,343 tons await shipment.

Also included are commitments of 377 million dollars for tin, manganese ore, copper, tungsten, and other metals, made by the Metals Reserve Company. This corporation, created by the Reconstruction Finance Corporation at the same time and in the same manner as the Rubber Reserve Company, is charged with the purchase of a reserve supply of critical and strategic metals essential to the progress of national defense. As yet only a small proportion of the material covered by these commitments has been delivered.

Other commitments included in the Reconstruction Finance Corporation total are those of the Defense Plant Corporation, aggregating 350 million dollars, and of the Defense Supplies Corporation, aggregating 55 million. The Defense Plant Corporation is empowered to build and expand plants for the manufacture of war materials or for the production of equipment, supplies, and machinery usable in such manufacture. Plants so acquired are leased to the manufacturer, the corporation being protected by the rent received or by a contract of reimbursement from the Army or Navy. Of the total commitments made by the Corporation, 283 million dollars is for the construction of plants for the manufacture of airplanes and parts, 36 million for machine tools, and the remainder for docks, shipyards, and the manufacture of tanks, engines, ordnance, and other items.

Table 32.—Loans and Capital Stock Holdings of Governmental Corporations and Credit Agencies, by Type of Borrower, Nov. 30, 1940

Type of borrower	Nov. 30, 1940	12-month change
Banks	838	+3
Railroads	515	+18
Insurance companies	28	−1
Building and loan associations	384	+1
Mortgage loan companies	44	−16
Cooperative associations	827	+69
States, Territories, etc.	204	+19
Ship construction and reconditioning loans	37	−12
Urban mortgage loans (n. s. c.)	2,211	−31
Farm mortgage loans (n. s. c.)	2,509	−88
Crop, livestock, and commodity loans	673	+59
Low-cost housing loans	176	+60
Foreign-trade loans	31	+23
Other loans and stock	773	+50
Total	8,446	+164

Table 33.—Liabilities of Governmental Corporations and Credit Agencies, Nov. 30, 1940

[Millions of dollars]

Agency	Liabilities and reserves				Proprietary interest			
	Guaranteed by the United States [1]		Not guaranteed		Privately owned		Owned by United States	
	Nov. 30, 1940	Change, November 1939–November 1940	Nov. 30, 1940	Change, November 1939–November 1940	Nov. 30, 1940	Change, November 1939–November 1940	Nov. 30, 1940	Change, November 1939–November 1940
LENDING AGENCIES								
Reconstruction Finance Corporation	1,100	+2	309	+214			233	−202
Home Owners' Loan Corporation	2,836	−200	51	−61			21	−27
Home loan banks			147	+86	56	+5	125	
United States Housing Authority	227	+112	5	+2			138	−13
Commodity Credit Corporation	697	+280	130	−67			100	
Federal Farm Mortgage Corporation	1,277		41	−8			127	−20
Federal intermediate credit banks			205	−6			69	−35
Federal land banks			1,619	+15	214	+11	209	−97
Banks for cooperatives			3	−1	4		143	−25
Farm Credit Administration			192	−4			84	−6
Other [2]		−1	227	+56			1,504	+349
Total, lending agencies	5,937	+203	2,124	+283	274	+16	2,840	−135
INSURANCE AGENCIES								
Federal Deposit Insurance Corporation			242	+42	126		160	
Federal Housing Administration	13	+10	3	+1			54	+10
Other [3]			7	+1			140	+11
Total, insurance agencies	13	+10	252	+44	130		344	+21
Tennessee Valley Authority			16	−1			343	+39
Grand total	5,949	+213	2,391	+326	413	+16	3,526	−76

[1] Including accrued interest totaling $29,000,000 on Nov. 30, 1940.

[2] Regional agricultural credit corporations, Export-Import Bank of Washington, Public Works Administration, United States Maritime Commission, Rural Electrification Administration, Federal National Mortgage Association, production credit corporations, war emergency corporations and agencies (in liquidation), Disaster Loan Corporation, Electric Home and Farm Authority, Farm Security Administration, Federal Prison Industries, Inc., Indian loans of Interior Department, Inland Waterways Corporation, National defense corporations, Panama Railroad Company, Puerto Rico Reconstruction Administration, R. F. C. Mortgage Company, Tennessee Valley Associated Cooperatives, Inc., and Treasury Department agencies.

[3] Federal Crop Insurance Corporation and Federal Savings and Loan Insurance Corporation.

The Defense Supplies Corporation is empowered to acquire and carry a reserve supply of materials which may be necessary in the interest of defense. Of its direct commitments, 50 million dollars is for the purchase of high-test aviation gasoline and the balance for Chilean nitrate of soda. In addition it is transporting to and storing in this country 250 million pounds of Australian wool with funds to be provided from the emergency fund for the President. Finally, the Reconstruction Finance Corporation has authorized participations totaling 5 million dollars for defense loans in cooperation with private banks and has made direct authorizations aggregating 127 million dollars to 167 private manufacturers in the defense program.

International Trade and Finance

The international trade and financial position of the United States during 1940 was characterized chiefly by the following developments:

(1) Merchandise exports showed sharp increases over recent years, while imports expanded much more moderately, resulting in the largest export surplus in almost 20 years.

(2) The net inflow of capital from abroad continued in large volume, although British dollar assets were drawn down to meet war needs. A great part of the increase in foreign assets in the United States represented funds sent here by certain European countries, notably France, to cover anticipated requirements in this country, which were subsequently blocked by executive order after German occupation of the countries in question. This situation helped to explain the coexistence of a rise in foreign holdings in the United States and a shortage of dollar exchange in many foreign markets. Furthermore, a large part of British holdings had already been set aside to pay for future commitments, although still nominally under foreign ownership.

(3) Gold imports, already greatly swollen in 1939, were on an even larger scale in 1940. In each of these years net gold imports actually exceeded total merchandise exports—a situation without precedent in the history of the United States. Part of the inflow was required to pay for the export surplus, but the major portion was clearly related to capital movement.

(4) American travel expenditures overseas dropped sharply because of the war.

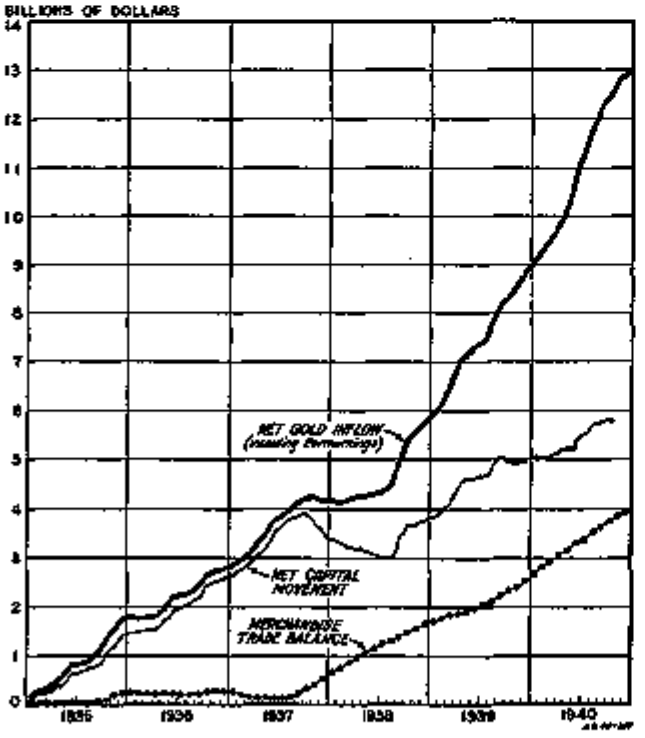

Figure 37.—Cumulative Net Movements of Gold and of Capital Between the United States and Foreign Countries, and Cumulative Excess of Merchandise Exports over Imports, Since the Beginning of 1935 (Net Gold Inflow, U. S. Department of Commerce and the Board of Governors of the Federal Reserve System; Net Capital Movement, U. S. Treasury Department; and Merchandise Trade Balance, U. S. Department of Commerce).

NOTE.—Data for "Net capital movement" are plotted weekly; other data are plotted monthly. Data for "Net capital movement" are plotted through the week ended October 30, 1940; data for subsequent weeks were not available in time to include them in this chart.

Merchandise Trade

The impact of the war on United States foreign trade is partly indicated by the rise in exports during 1940 to $4,022,000,000, the highest total since 1929. The increase over 1939 was about 27 percent. Since export prices are still far below those prevailing in the 1920's, the physical quantity of exports in 1940 was probably the greatest since the end of the World War period, with the possible exception of 1929. Imports, on the other hand, lagged far behind exports. The import total was $2,625,000,000, a rise of about 13 percent over 1939, well under the $3,084,000,000 mark reached in 1937. As a result, the export balance in 1940 was $1,400,000,000, the highest since 1921.

These totals, however, furnish an inadequate measure of the war's influence on our foreign trade. Behind them lie sweeping changes in the composition and direction of the trade. Broadly speaking, the export trade has come to be increasingly concentrated in supplying the materials and weapons of war to the British Empire. It is chiefly this factor, along with a substantial expansion in shipments to Latin America and the Far East, that explains the rise in the export total despite the virtual elimination of European markets and restrictions in other areas against "nonessentials" affecting many of our largest export items, notably agricultural products. Although less sharply affected than exports, the import trade also shows important shifts to the British Empire, largely reflecting heavier purchases of strategic commodities, while the shutting off of sources of supply in continental Europe is shown chiefly in lower imports of finished goods.

Shift in Destination of Exports.

Some of the changes in the composition of exports go back beyond the beginning of 1940—not merely to the outbreak of war but even earlier. Exports of aircraft and various other war-related items had already risen to some extent as a result of the Sino-Japanese hostilities and the growing tension in Europe during the late thirties. And, of course, the decline in agricultural exports has been of a far more long-term character. By contrast, the change in the geographic distribution of exports came abruptly in the second quarter of 1940, as may be seen in figure 38. Up to that time, exports to continental Europe had risen materially despite the virtual elimination of Germany and Poland from our export markets after the beginning of the conflict.

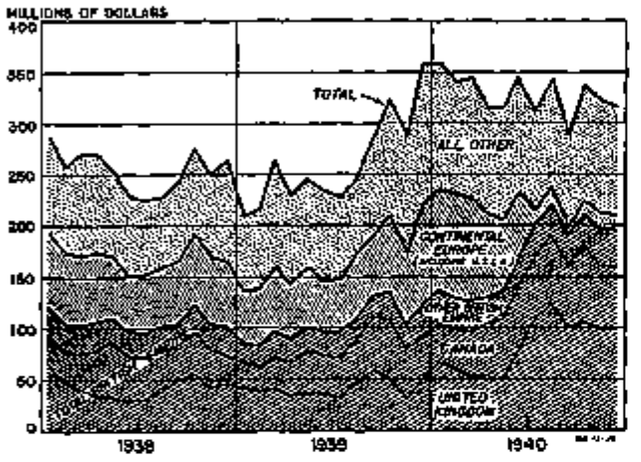

Figure 38.—Value of Exports of United States Merchandise to the British Empire, Continental Europe, and Other Areas, 1938–40 (U. S. Department of Commerce).

NOTE.—Export figures cited in the text, with the exception of those covering particular commodities or commodity groups, include reexports of foreign merchandise as well as exports of United States merchandise and are therefore slightly larger than those plotted on the above chart.

Exports to continental Europe during the first quarter of 1940 averaged $105,500,000 per month, an increase of about $47,800,000 over the first quarter of 1939. Exports to the United Kingdom, on the other hand, showed a monthly average of about $59,300,000 during the first quarter of 1940, an increase of only about $18,600,000 over the same period of 1939. This situation was drastically changed soon thereafter. In April the occupation by Germany of Denmark and Norway brought those countries under British blockade and created serious obstacles to trade with other Baltic countries. The following month, the Netherlands and Belgium were shut off from outside trade, and in June the collapse of France and the entrance of Italy into the war eliminated or severely curtailed practically all the remaining continental European markets. During the last half of 1940 exports to continental Europe averaged only about $14,000,000 per month, including about $7,400,000 for the U. S. S. R., which really represents trans-Pacific trade through Vladivostok.

Table 34.—Exports (Including Reexports) and General Imports, Showing Share of British Empire, Continental Europe, and Other Areas

[Value in millions of dollars]

Period	British Empire[1]		Continental Europe[2]		All other areas		Total value
	Value	Percent of total	Value	Percent of total	Value	Percent of total	
EXPORTS							
1938—1st half	653.9	41.1	226.9	14.9	700.0	44.0	1,580.8
2d half	639.2	42.5	255.2	17.0	609.3	40.5	1,503.6
Total	1,293.1	41.8	492.1	15.9	1,309.2	42.3	3,084.4
1939—1st half	584.9	39.9	336.0	23.7	515.1	36.4	1,416.0
2d half	714.5	40.6	436.7	24.8	610.0	34.6	1,761.2
Total	1,270.4	40.2	772.7	24.3	1,125.1	35.4	3,177.2
1940—1st half	844.6	40.9	540.7	26.2	679.7	32.9	2,065.5
2d half	1,248.1	63.3	83.6	4.3	624.9	31.9	1,956.6
Total	2,092.7	52.0	624.3	15.5	1,304.6	32.4	4,021.6
IMPORTS							
1938—1st half	303.7	31.6	206.0	21.4	451.2	47.0	961.0
2d half	333.3	33.4	240.0	24.0	426.2	42.6	999.4
Total	637.0	32.5	446.0	22.8	877.4	44.8	1,960.4
1939—1st half	370.3	34.7	227.3	21.7	477.9	43.7	1,094.5
2d half	450.0	36.3	225.3	18.5	567.4	44.7	1,223.6
Total	820.3	35.3	463.5	20.0	1,025.3	44.2	2,318.1
1940—1st half	522.6	40.4	163.8	12.7	607.5	46.9	1,294.1
2d half	607.6	45.0	63.6	4.8	660.2	49.8	1,331.3
Total	1,130.4	43.1	227.4	8.7	1,267.6	48.3	2,625.4

[1] Includes all parts of the British Empire throughout the world.
[2] Includes U. S. S. R. but excludes Turkey, Gibraltar, United Kingdom, Ireland, Iceland, Azores and Madeira, and Malta, Goa, and Cyprus.

The Allied defeats on the continent and the virtual closing of Europe to United States trade were immediately followed by a rush of American supplies to the United Kingdom. Exports to that country rose from $49,788,000 in May to $77,958,000 in June, $109,867,000 in July, and $126,021,000 in August. Much of this increase consisted at first of emergency shipments of firearms, ammunition, and explosives. After August, exports to the United Kingdom declined slightly but averaged over $100,000,000 monthly for the last half of 1940, or about one-third of total exports.

Exports to other parts of the British Empire tended upward soon after the outbreak of war despite the prompt imposition in most instances of exchange and import controls restricting purchases of nonessential goods. For example, exports to Canada rose by more than 50 percent in the first half of 1940 over the same period of 1939, and the increase in exports to other areas was even larger in some instances. During the latter half of 1940 exports to the British Empire, including the United Kingdom, averaged over $200,000,000 monthly, double the pre-war level and about 64 percent of the export total. Two countries, the United Kingdom and Canada, accounted for more than half of all exports in the latter half of 1940.

Latin American trade, which had risen swiftly after the outbreak of war interfered with European sources of supply, held up remarkably well throughout 1940 despite the exchange difficulties created by the loss of continental European markets that absorbed more than

half a billion dollars of Latin American goods in 1938. United States exports to Latin America as a whole rose by about $144,000,000 over 1939 to $777,000,000, thus maintaining their usual share of about 20 percent of total exports. Dollar exchange to cover this trade was provided to some extent by a rise in shipments to the United States, by continued sales of silver to the United States Treasury, and by an inflow of refugee funds lodged in dollar accounts. However, heavy shipments of gold were also necessary in certain instances. Several of the Latin American countries, notably Brazil, Chile, and Colombia, were also aided by Export-Import Bank credits.

Shipments to Japan, totaling $227,000,000 in 1940, were only slightly below the 1939 level, although in the latter part of the year American export-control measures began to affect sharply trade in certain items, such as machine tools and scrap iron, on which Japan was more than ever dependent on the United States after the war in Europe began. Exports to China rose substantially from $55,600,000 in 1939 to $78,000,000, but the export statistics do not indicate how much was for "free" China, aided by Export-Import Bank credits, and how much for Shanghai and Japanese-occupied sections.

Fall in Agricultural Exports.

The varying effects of the war upon the composition of exports are indicated by figure 39, which traces the course of some of the principal export commodities. Agricultural exports have suffered greatly from the elimination of the continental European market and from the imposition of severe restrictions on "non-essentials" by the United Kingdom, normally the largest single market for these goods. The total of $520,000,000 for agricultural exports during 1940, while the lowest in many years, does not fully show the effects of these developments, for cotton exports during the early months of the year were relatively high. Agricultural exports during the latter half of the year failed almost completely to show the usual seasonal rise and totaled only $170,000,000. On a quantity basis, indexes compiled by the Department of Agriculture show that the physical volume of agricultural exports during the latter part of 1940 was at the lowest point since 1869.

This development is strikingly different from the course of events during the World War, when the European demand caused an enormous expansion in production and exports of foodstuffs, although cotton exports suffered at that time also.

By contrast, exports of finished and semifinished

Table 35.—Exports of United States Merchandise—War-Related Products and Other Commodities

(Value in millions of dollars)

Period	Principal war-related products [1]	Other manufactures [2]	Raw cotton	Other agricultural products	Other crude materials	Total U. S. merchandise
1938						
1st half—Value	279.2	772.4	118.9	293.9	105.6	1,570.1
Percent	*17.8*	*49.2*	*7.6*	*18.7*	*6.7*	*100.0*
2d half—Value	250.2	711.9	109.8	305.0	104.1	1,487.0
Percent	*17.2*	*47.9*	*7.4*	*20.5*	*7.0*	*100.0*
Total—Value	536.5	1,484.3	228.7	598.9	209.7	3,057.1
Percent	*17.5*	*48.6*	*7.5*	*19.6*	*6.9*	*100.0*
1939						
1st half—Value	293.6	743.9	68.5	199.7	87.5	1,397.7
Percent	*21.0*	*53.2*	*4.9*	*14.3*	*6.2*	*100.0*
2d half—Value	412.5	813.8	174.5	212.4	112.4	1,725.7
Percent	*23.9*	*47.2*	*10.1*	*12.3*	*6.5*	*100.0*
Total—Value	706.2	1,562.7	243.0	412.1	199.8	3,123.3
Percent	*22.6*	*50.0*	*7.8*	*13.2*	*6.4*	*100.0*
1940						
1st half—Value	572.9	894.7	172.4	178.6	100.3	2,016.8
Percent	*28.5*	*44.3*	*8.6*	*8.8*	*5.0*	*100.0*
2d half—Value	819.0	833.9	41.2	124.5	97.2	1,916.8
Percent	*42.7*	*43.5*	*2.2*	*6.5*	*5.1*	*100.0*
Total—Value	1,491.9	1,728.4	213.7	303.2	197.5	3,934.7
Percent	*37.9*	*43.9*	*5.4*	*7.7*	*5.0*	*100.0*

[1] Includes heavy iron and steel, nonferrous metals, metal-working machinery, aircraft and parts, firearms, and chemical products.
[2] Includes nonagricultural semimanufactures and finished manufactures, other than those mentioned in note 1.

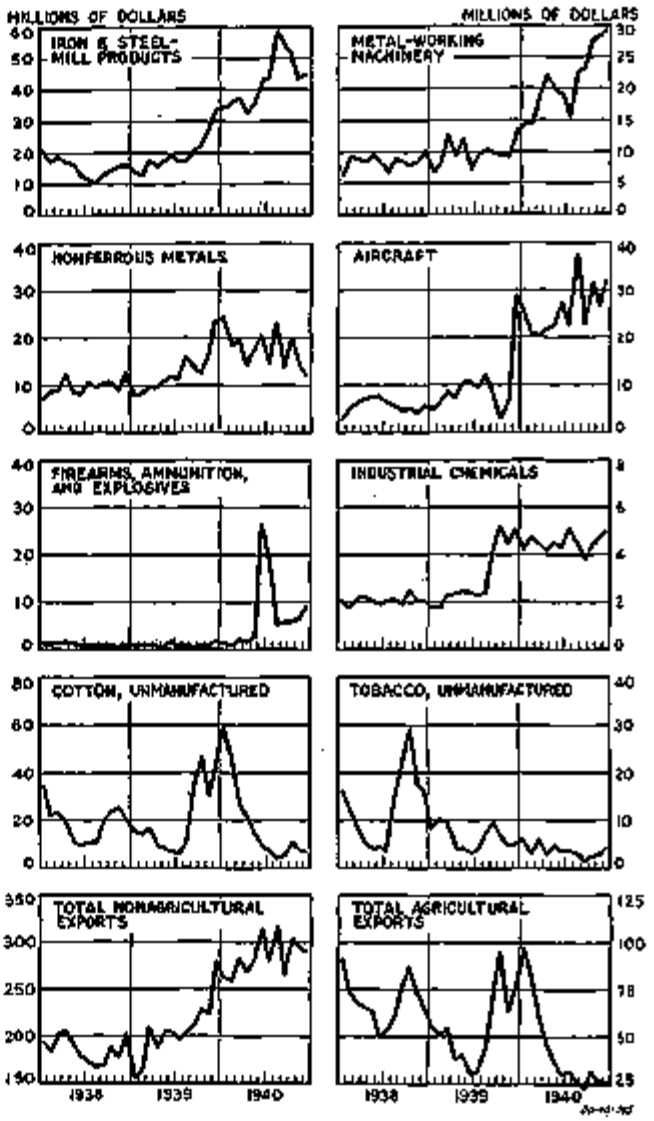

Figure 39.—Value of Exports of United States Merchandise, by Selected Commodity Groups, 1938-40 (U. S. Department of Commerce).

goods have risen sharply from $2,282,000,000 in 1939 to $3,238,000,000 in 1940—six war-related groups having been responsible for most of the increase. These commodities, which made up 37 percent of total exports in 1940, are metal-working machinery, heavy iron and steel products, aircraft and parts, nonferrous metals, firearms and ammunition, and chemical products. Exports of these totaled $294,000,000 in the first half of 1939, $413,000,000 in the second half of 1939, $673,000,000 in the first half of 1940, and $819,000,000 in the second half. Of the latter total, approximately 70 percent went to the United Kingdom and Canada as against 25 percent of the total for the first half of 1939.

On the other hand, exports of many other manufactured goods, such as passenger automobiles and office appliances, have been adversely affected and show considerable reductions in value.

Imports of Crude Materials Rise.

The increase in imports during 1940 was heavily concentrated in crude and semimanufactured products. This increase is reflected in the rise in imports from Asia and Latin America, where the principal sources of imported raw materials required by American industry are located.

Basic raw materials—such as crude rubber from British Malaya and the Netherlands Indies; tin from British Malaya and Bolivia; copper from Chile, Mexico, Peru, and Canada; ferro-alloys from sources in Asia, Africa, and Latin America; wool and mohair from countries in Asia, Australasia, and South America; and vegetable fibers, chiefly from Asia—were imported in sharply increased amounts to meet expanded domestic requirements and in certain cases to build up stock piles. A number of other major import items obtained principally in Asia and Latin America, including jute burlaps from India, petroleum from Venezuela, and certain vegetable oils and oilseeds from various Asiatic and South American sources, also increased very substantially.

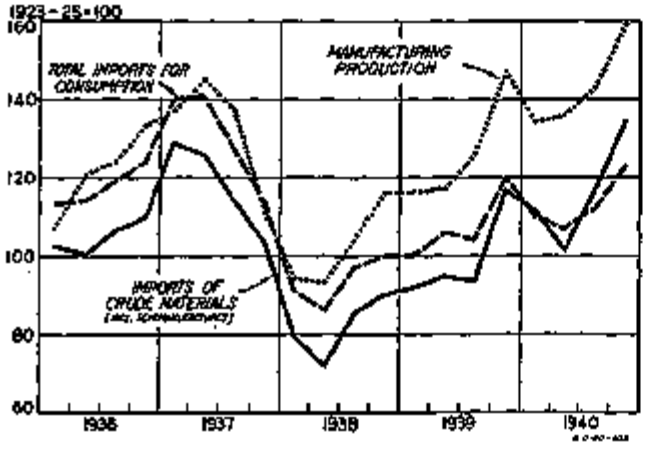

Figure 40.—Indexes of Quantity of Total Imports for Consumption, Imports of Crude Materials (including semimanufactures), and Manufacturing Production, by Quarters, 1936–40 (U. S. Department of Commerce).

NOTE.—The index of manufacturing production was recomputed, with the 1923–25 average as base, from the revised series (1935–39=100) constructed by the Board of Governors of the Federal Reserve System.

As indicated by figure 40, the physical volume of United States imports, which consist in large measure of industrial raw materials and semimanufactures, tends to vary with the rise and fall of manufacturing production in this country. However, the quantity of imports has lagged behind the strong rise that has occurred in manufacturing output since the outbreak of war in Europe. This lag has been due to a drop in imports of finished goods and manufactured foodstuffs and beverages. Imports in these groups from the United Kingdom have held up rather well because of that country's vigorous efforts to promote its export trade, but sources of supply on the continent of Europe have been almost entirely cut off since the middle of 1940. On the other hand, there has been a strong increase in imports of crude materials and semimanufactures. In the case of certain important commodities, however, the increase was influenced by purchases for the purpose of accumulating reserves of strategic materials.

Table 36.—Imports for Consumption, by Economic Classes

[Value in millions of dollars]

Period	Principal strategic materials[1]	Other crude materials and semimanufactures[2]	Foodstuffs	Finished manufactures[3]	Total imports for consumption
1938					
1st half—Value	144.0	308.5	289.1	140.9	942.5
Percent	15.3	32.7	30.7	14.9	100.0
2d half—Value	151.5	427.2	281.6	146.9	1,007.1
Percent	15.0	42.4	28.0	14.6	100.0
Total—Value	295.5	735.7	570.7	287.8	1,949.6
Percent	15.2	37.8	29.3	14.8	100.0
1939					
1st half—Value	171.6	455.5	290.7	153.9	1,071.7
Percent	16.0	42.5	27.1	14.4	100.0
2d half—Value	249.8	498.5	313.4	142.7	1,204.4
Percent	20.7	41.4	26.0	11.9	100.0
Total—Value	421.3	954.0	604.2	296.6	2,276.1
Percent	18.5	41.9	26.5	13.0	100.0
1940					
1st half—Value	378.5	541.3	301.3	123.6	1,243.2
Percent	30.4	43.6	24.2	9.9	100.0
2d half—Value	379.5	541.5	261.2	114.9	1,297.1
Percent	29.3	41.7	20.1	8.9	100.0
Total—Value	655.9	1,082.2	562.5	238.6	2,540.3
Percent	25.8	42.6	22.1	9.4	100.0

[1] Crude rubber, raw silk, tin, nickel, antimony, and ferro-alloy ores and metals.
[2] Includes burlaps and newsprint.
[3] Excludes burlaps and newsprint.

Gold and Silver Movements

For many years gold has moved into the United States with only occasional interruption. Since the beginning of 1934 there have been only 3 months in which the net flow has been outward, and the net inward movement has exceeded a billion dollars a year. Since the fall of 1938 the flow has been greatly accelerated, with the extraordinary result that during both 1939 and 1940 the net import of gold has actually exceeded the merchandise export total. Net gold imports amounted to $3,574,151,000 in 1939 and $4,744,472,000

in 1940 as compared with total merchandise exports of $3,177,176,000 and $4,021,564,000, respectively.

As in other recent years, the major portion of this gold was shipped from British Empire countries. This portion in 1940 was $3,627,917,000 or 76 percent of the total for the year. Despite this high degree of concentration, however, there were 14 countries outside the British Empire that sent more than $20,000,000 each and 6 additional countries that sent more than $10,000,000 each. By contrast, there was only one country to which gold shipments exceeded gold receipts; that country was Bolivia, to which there was a net export of $4,714,619.

While predictions in the matter are necessarily hazardous, it appears reasonable to suppose that the huge gold movements which have occurred since the fall of 1938 must decline drastically. Shipments have been greatly in excess of production for several years. There is good reason to believe that many of the principal gold stocks have already been transferred for the most part to the United States, and in certain other cases it seems unlikely that circumstances would permit further shipments of importance. Future imports, therefore, will probably be limited more and more to current production. Nor, on the other hand, can circumstances be readily envisaged that would lead to a gold movement away from the United States on a scale comparable to imports during 1940. It is thus probable that 1940 has set a record for international gold shipments that will last for a very long time.

Table 37.—Gold and Silver Imports Into the United States and Gold and Silver Production Outside the United States, 1934–40

(Millions of dollars)

Year	Gold imports (net)	Gold production outside United States [1]	Silver imports (net)	Silver production outside United States [1]
1934	1,184	862	94	76
1935	1,739	939	336	113
1936	1,117	1,021	171	88
1937	1,390	1,065	90	92
1938	1,974	1,171	223	90
1939	5,574	1,226	71	79
1940	4,745	[2] 1,290	55	[2] 85
Total	16,837	7,608	1,023	622

[1] Data include estimates for gold and silver produced in the Union of Soviet Socialist Republics.
[2] Preliminary.

Net silver imports during 1940 were $54,760,000, the lowest since the silver-purchase program of 1934 was started. The figure was, nevertheless, large enough to bring cumulative net silver imports since the beginning of 1934 to about $1,022,000,000.

Capital Movements

Although the merchandise export balance of $1,400,000,000 in 1940 was the highest since 1921, it appears small in comparison with net gold imports of $4,744,472,000 during the year. Even after deducting $644,669,000 added to gold under earmark for foreign account the net gold inflow for the year still exceeds the merchandise export surplus by $2,700,000,000. So-called "service" transactions normally entail net payments by the United States to foreign countries. The principal change in these items during 1940 was a heavy decline in American outlays for oversea travel. As this decline started with the outbreak of war in the fall of 1939, it had not made its restrictive effects fully felt until 1940. Other service items, such as freight payments, interest and dividends, personal and charitable remittances, were variously affected, but the net effect of such changes was small.

Therefore, there must have been a net capital movement in the neighborhood of $2,500,000,000 to the United States during 1940. This figure would, in principle, represent the net result of all kinds of capital transactions—for example, the rise in bank balances in this country for the account of foreigners; withdrawals by Americans of their bank balances abroad; sales of securities, either domestic or foreign, by Americans to foreigners; reductions in commercial credits granted to foreigners; advance payments for American goods; and similar transactions.

Actually, however, it is not possible to account for more than a relatively small part of this movement on the basis of recorded figures of capital transactions. Data thus far available, covering the first 9 months, show a net capital inflow of only $784,000,000. Figures for the full year may increase this total somewhat, but it is apparent that a large unexplained balance will remain. Certain assumptions as to the nature of the unrecorded capital movement appear plausible. For one thing, funds actually owned by foreigners may be held in this country under domestic names and would thus not be included in the reported capital inflow. Furthermore, funds previously held for foreign account may be transferred to domestic addresses with, for example, the coming of refugee owners to the United

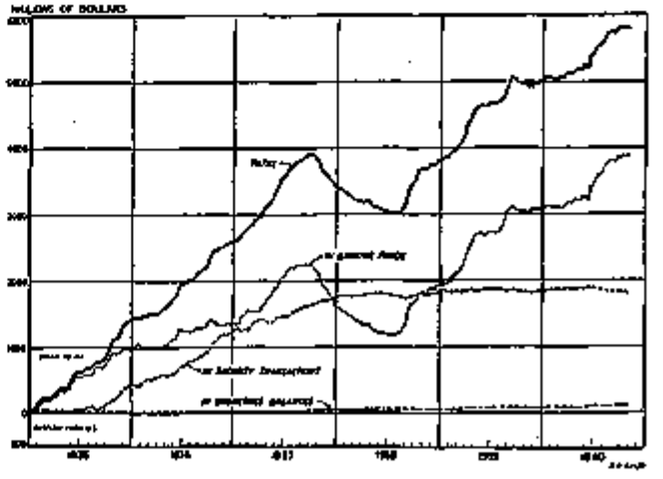

Figure 41.—Cumulative Net Capital Movements Between the United States and Foreign Countries, by Types, Beginning with January 1, 1935 (U. S. Department of Commerce).

NOTE.—Data are plotted through the week ended October 30, 1940; data for subsequent weeks were not available in time to include them in this chart.

States; such transfers might be reported as a reduction in foreign holdings, thereby tending to reduce the net recorded inward movement. Finally, payments in advance made by the British Government on war orders and for plant construction were reported at the end of 1940 to be $720,000,000 in excess of such payments at the outbreak of war. Most of these payments undoubtedly occurred in 1940.

At this time it is possible only to speculate about the nature of the unrecorded capital movement. Detailed observations must be confined for the moment to that portion for which figures are available. As stated above, these figures show a net capital inflow of $784,000,000 during the first 9 months of 1940. About 70 percent of the inflow occurred during the months of June, July, and August.

This net inward movement of foreign funds originated in many countries, with France, Switzerland, and Canada accounting for the major portion. A large part of this transfer of foreign capital occurred on government and central-bank account. Only the United Kingdom withdrew funds on balance from the United States, and these withdrawals were primarily the result of large dollar payments for war supplies.

As in 1938 and 1939, international capital movements in 1940 were dominated by a large net inflow of short-term funds. From January to September, inclusive, the inward movement of banking and brokerage balances exceeded $806,000,000. By contrast, the net movement of long-term funds resulted in a net liquidation by foreigners of $22,000,000 in domestic and foreign securities previously held abroad.

Foreign Assets in the United States.

On October 2, 1940, reported foreign banking and brokerage balances in the United States amounted to $3,769,000,000, an increase of $659,000,000 during the 9-month period. Most of this rise occurred in June, July, and August and was closely related to the heavy gold imports of those months. The principal gain resulted in the rise of French dollar balances by approximately $215,000,000, the larger part of which occurred during the week ended June 19. Important increases for the accounts of other countries were as follows: Canada, $136,000,000; Switzerland and Sweden, $83,000,000 each. Substantial declines occurred in the British and Japanese balances.

Foreign long-term investments in the United States were reduced from January through August by the net sale of United States securities in the amount of $89,000,000. The largest net sales were $65,600,000 for Japanese account, $56,900,000 for the account of the United Kingdom, and $18,000,000 for Canadian account. The principal net purchases were made by Italy and Switzerland in the amounts of $31,100,000 and $20,700,000, respectively.

British Empire transactions in United States securities are of particular interest because of their relation to the war financing. The importance of British investments in such securities was recognized at the beginning of the war, and measures were soon taken to ascertain the nature and volume of these holdings and to permit the authorities to requisition them. The Government of the United Kingdom, alone among the Empire countries, has exercised these powers and requisitioned some of the security holdings of its subjects. The first requisition was made on February 17, 1940, and covered 60 United States share issues; the second was on April 14 and covered 92 share and 25 bond issues; and the third on December 15 covered 59 share and 7 bond issues. In April, Australia announced that holders of certain United States securities might have 6 months in which to sell them and turn the proceeds over to the Commonwealth Bank.

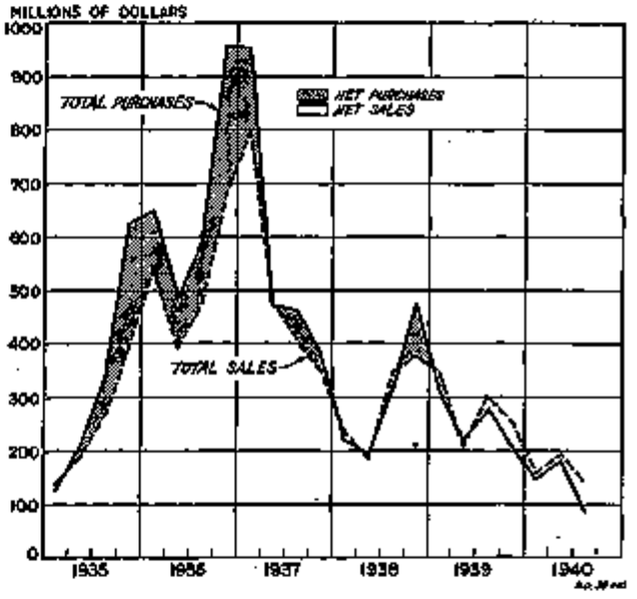

Figure 42.—Foreign Purchases and Sales, and Net Purchases or Sales of United States Domestic Securities, by Quarters, 1935–40 (U. S. Treasury Department).

NOTE.—Data include transactions executed in the United States for foreign account, executed abroad for domestic account, and transactions in joint foreign arbitrage accounts as reported by banks, brokers, and dealers in the United States. Quarterly figures in chart are totals of weekly transactions through October 2, 1940; data for subsequent weeks were not available in time to include them in this chart.

The reported sales of these and other United States securities by the United Kingdom up to October 2 amounted to $56,900,000, only a fraction of the value of the stocks and bonds mobilized under the first two vesting orders. However, sales were also made by private negotiation and through specially organized selling syndicates, particularly during the last quarter of the year. At the end of the year it was announced that the liquidation of 57 stock and 11 bond issues had been completed, but the amount realized was not stated.

The possibility of changes in the investments of certain countries in the United States has been restricted by the action of the United States Government in

blocking the assets of certain countries under foreign occupation. This step was first taken following Germany's occupation of Denmark and Norway in April 1940, and other countries subsequently affected were Belgium, Estonia, France, Latvia, Lithuania, Luxemburg, Netherlands, and Rumania. By executive order it was required that the assets of these countries in the United States should be registered with the Treasury Department and that transactions relating to such assets should be subject to license by that Department.

United States Assets Abroad.

The foreign assets of United States banks and citizens were reduced considerably during the first 9 months of 1940, as in other recent years. The inflow of banking and brokerage funds from abroad amounted to $147,000,000 and brought total United States short-term investments in foreign countries down to $412,000,000 on October 2, 1940. The largest withdrawal was from Japan. Reductions also took place in the United States banking assets in the United Kingdom, Canada, Germany, Italy, and other European countries.

Net purchases by foreigners of foreign securities in the United States during the January–September period amounted to $68,000,000, the largest reported net purchases being made by Canada and by Latin America. Canadians apparently substituted some Canadian securities in their own portfolios for the United States securities that were sold during the period. Most of these Canadian and Latin-American net purchases were probably connected with redemptions at maturity.